

Dr. *Franciscus de le Boe Sylvius*
 OF *K*
Childrens Diseases :
 Given in a familiar style for weaker capacities.
 WITH AN
APPARATUS
 OR
 Introduction explaining the Au-
 thors Principles : As also a
TREATISE
 OF THE
RICKETS.

By *R. G.* Physician.

Οἱ ἰσθροὶ σήμερον πολλοὶ, ἔργον δὲ πύχυν βασιό.
 Hip.

Rectè curaturum, quem prima origo Causæ
 non fesellerit. Celsus de Med.

London, Printed for *George Downes* at the Three
Flower de Lucès in Fleet-street, over
 against St. *Dunstan's* Church. 1682.

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THE
Epistle Dedicatory.

To the Right Worship-
ful Sir Nathaniel Johnson Maye-
or, Sir Robert Shafto Recor-
der, Sir Ralph Carr, Sir Ralph
Jennison; Henry Brabant, Ti-
mothy Davison, Robert Rod-
dam, Matthew Jeffreyson, George
Norton, Timothy Robson, Ni-
cholas Fenwick, Esquires, Al-
dermen; Joseph Bonner Es-
quire, Sheriff.

S I R S,

YOU need not impute it
to any other reason,
besides your own ver-
tues, that I have presumed to
shrowd these weak labours un-

The Epistle Dedicatory.

der the Wings of your Patronage: For though the smallness of the work may seem to argue too much Ambition in the Author, yet the greatness of your favours, makes it a duty indispensable to

Your obliged and humble
Servant,

From the Spittle
in Newcastle upon
Tine.

Richard Gower.

T H E

THE APPARATUS.

1. **T**HAT this Book might be the more beneficial, I have (not as in translating the Authors first Book) omitted many repetitions*, as also reflections upon his Antagonists, avoided many terms of Art, giving them in a plainer dress, not confining my self to a verbal Translation: yet without any material alteration or omission.

* In Chap. 5. 34 Sections are left out, in others several.

2. And that his First Book of Practice, together with this Treatise

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tise of Childrens Diseases, may be plain to an ordinary capacity, have explained some of his Terms and set down his Principles, which being well weighed, will lead you to a true and right understanding of any of his writings.

3. Also, that I may not be short in this my bounty, if any difficulty be found either in the Theory or Practice, I am freely willing by Word or Writing to clear it unto any, although I have added Marginal notes.

4. Yet if any, as I know many, will snarl at me for this my candour, Envy moves them, I value it not: For seeing in our Countrey men generally are permitted a liberty to practise, and in the words of Hippocrates, have no other punishment for their Errors than Disgrace;

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grace : It will appear that I wish well unto the publick, when I would have them well instructed. Nay further, I doubt not but many will censure me, who yet will be glad of this help. And as I know it is the best * guide a Physician can have ; so I am the more bold to venture my credit upon it.

* See the
Authors
Preface to
his First
Book.

5. Aromatical Plants are such as have a fragrant smell, as Mint, Balm, &c.

6. Fermentation is that change which meat undergoes in the Ventricle (or Stomach) : called of old Digestion or Concoction. Not unlike that of Wheat with Leaven, its flower having a proportion of Spirits, Salt and Sulphur, which being moistened, every of those Particles are wrought upon by the Leaven, as the parts of our food are wrought
a upon

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upon by the Conflux of humours in the Stomach, thereby losing their toughness; It being an approved Maxime in Chymistry, that Where Salts of different natures meet, they work upon one another: as you may see in §. 10. below: Our meat thus fermented is called Chyle. We take it for granted, that the humour (or humours) which cause this fermentation in the Stomach comes not from the Spleen, seeing no passage from the Spleen to the Stomach could ever be demonstrated in Anatomy; as Dr. Willis * confesses, though to his disadvantage; thence judging it probable, that the remainder of Chyle in the Stomach being sowed by its abode there, ferments the meat next eaten; a very unlikely notion, and below a man of his fame; as though between every meal

* De Ferment. Cap. 5.

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meal it could grow so soure as to ferment the next, as Leaven does the Dough: Surely he has not used the rule of proportion right, to take hours for days or weeks.

7. That meat rightly ferment, its parts must first be loose, and ready to be dis-joynd from one another, thus chewing helpeth fermentation. Hard, tough and dried meat digest slowly: Bread and moist food soon: Beer, Broth and any liquid thing sooner: Wine, Strong drink, &c. especially warmed, soonest; yea, they are too quick for Fermentation, nourishing the body in an instant.

8. Secondly, It must neither be too raw, nor too ripe. If the first, its active parts are not freed easily from the thicker, and so move not, without which Fermentation cannot be: thus green fruits are not fit for eating, or

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to make drink of. If the latter, it inclines to putrefaction, the volatile parts leaving the rest: thus over-ripe fruits are not fit to make liquors of, because they soon putrifie or rot: and if eaten, breed Worms, as do the green.

9. Thirdly, It must consist of parts different in nature, as it were making a confusion in the whole: some parts opposing others, which cause motion, each different part contending with other for dominion. Whereas if it consist all of one Element, it is quiet and still, and cannot oppose it self. As all our meat has Spirit, Salt and Sulphur in it, though not so sensible to taste, as demonstrable by Chymistry: So the humours of our body consisting of different principles (as you may see below) and being in constant motion
to

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to the Stomach, where it meets with our meat ; cause a confused and unexpressible effervescency both with each other, and also with our food.

10. An Effervescency is an opposition (like unto boiling) of two contrary liquors, as may be seen by mixing Oil of Vitriol (a sharp sowre liquor) and Spirit of Sal Armoniac (a Lee Salt) together, which will also heat the Glass wherein they are. So the juice of the Sweet-bread of a Sowre, and Choler of a Lee-Salt; these two I say meeting in the Stomach fight thus together, and raise an effervescency, by which (with fresh supply) continued, our meat is digested.

11. Choler is bred of the Oily and Lee-Salt parts of the blood, and

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separated from it in the Liver; from thence carried into a Bladder, or little bag joined to the Liver, and whose office is to contain it, sending much of it through one passage to the small Gut and Stomach; and a little of it through another passage to the Heart.

12. The juice of the Sweet-Bread proceeds from the sower part of the Blood, and is separated from it in the kernels of the Sweet-Bread, which like a cushion are placed under the Stomach: This juice is conveyed through many small passages into a middle (the great) passage, along which it continually moves into the Gut. It and Choler having but one open into the Gut about three fingers breadth off the Stomach.

13. Spittle or Lympha (whence the Lymphaick passages) and liquor

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liquor Nervosus therein is much of the nature of the juice of the Sweet-Bread, but not so sower, yet promotes fermentation in the Stomach, though it be rather insipid in healthy people. It moves through a small passage at each jaw into the mouth; of it is bred Phlegm in the Stomach and Guts, daubed and as it were plaistered about their insides.

14. The Small and upper Guts are Duodenum, twelve fingers breadth long: Jejunum, that is, hungry, being mostwbat empty: Ileon, whence Iliack Passion, commonly called, twisting of this Gut.

15. The Thick Guts are Cæcum, above an inch long; Colon, a long Gut wherein is the Cholicke; Rectum joins to the fundament; out of which the dregs

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of Chyle are sent by Stool.

16. When meat is fermented in the Stomach, which is done by the conflux of Choler, Spittle, and the juice of the Sweet-bread thither, the lower Orifice (or end) of it opens of it self to admit the Chyle into the Guts, which still receiving more and more of those Humours is better fermented, and by a Natural, called Peristaltick Motion in the Stomach and Guts, whereby they carry downward any thing that is in them : While Chyle moves thus downward, the finest and best digested parts strain through the pores of the Guts which are unperceivable (so that you may fill a dead bodies Guts with wind, and it cannot get vent) : This Chyle got through the Guts moves along the Milky veins, which all meet in a Kernel
(cal-

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(called Pancreas Afellii) close to the back-bone about the Loins, where it still moves higher in a small passage called Ductus Thoracicus (or rather Spinalis.) which always having in it a humour like that of the Sweet-bread mixes with it as it goes into the Jugular or Axillar left Vein, and so into the great Hollow Vein, where it mixes with the Blood, with which it goes into those cavities of the Heart called, the Right Ear and Belly of the Heart, and the Vein of the Lungs; out of which being poured through the substance of the Lungs into the Vein of the Lungs, it goes on unto the left Ear of the Heart, and its left Ventricle.

*Vena &
Arter. Pul-
monal.*

17. So that Chyle begins to be changed into Blood in the Jugular Vein,

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Vein, but is perfected in the left Ventricle of the Heart; where it opens its passage more and more till by that displaying, the provoked Heart contracts its Musculous substance by the help of its Animal Spirits which forces the Blood forward mean while raising an Effervescence between the Oily Volatile Salt and Choler, and the juice of the Sweetbread; Whereby the various parts of the whole are disunited, and loosened from their Fetters, and insinuate themselves into the Oily and Fat parts, both of the Blood, and also of Chyle, as the proper subject of their Action, rarifying the same and changing the other parts more or less mixt with them, that our Life may be continu'd; and the Blood mov'd any whither; repairing all parts of the Body, and the

The Apparatus.

they are perpetually more or less con-
in'd. And lest this Efferve-
scency should over-heat the Blood,
the Lungs by Air suck'd in, mild-
temper its heat and warmness.

18. Blood thus perfected in both
Vellies or Ventricles of the Heart,
is carried at last through the num-
erless Branches of the Aorta or
great Artery to all parts of the Bo-
dy, whereby they are nou-
rished, and out of it, Liquors
are either useful or unuseful for
their dispensing in Mans Body,
are separated in several places,
and again sent back to the Mass
of Blood, or are sent out of the
Body, while the Blood is in its re-
ciprocal and Circular Motion,
called Circulation.

19. The Great Artery sends two
Branches up to the Head, (the Pulse
of

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of which may be felt on each side (Wind-pipe) another to each Arm another along the Back-bone; and each Thigh; even into every Toe and Finger, nay to every part of the body; Still like a Tree, further it goes, the more small branches it sends forth to nourish every part of the Body.

20. In the brain, the Blood affords matter for the Animal Spirit which are sever'd from it in the Brain and Cerebellum (or lower-brain) which is sent all over their continued Marrow as it were a pipe into the Nerves, whereby not only exercise the external Senses and animal Motion, but the humours are all temper'd, and Seed primarily generated by in the Testicles.

21. Of the Blood is Spitted
bre

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ed, in the kernels of the Jaws :
the other kernels Lympha ;
the Sweet-bread, its juice :
in my Authors opinion) Choler, in
Bag : In the Kidneys, its
beyish parts go into the Ureters,
d so into the Bladder.

22. As the Blood is conveyed all
er the body in Arteries to nourish
and the nourishing blood is thence
lled arterial blood ; so has God
onderfully contrived, that it should
sent from every remote part in
all veins, which grow still big-
r and fewer till they come to the
art, where with fresh Chyle and
at humours it there meets with, a
nstant Effervescency is main-
ined.

23. If this Effervescency be
ulty, which it always is, when
of the aforesaid humours are
out

The Apparatus.

out of temper ; it also makes the body so. As for Example, if Oily Salt in Choler abound, it causes a Fever ; different according to the depravation of the juice of the Sweetbread, which by a various effescency produces different effects : that juice be very soure or sharp, causes pains in any part, afflicted by it. If much and tough Phlegm be in the Stomach it dulls the appetite, if in the Guts, it will fend them against pain, and make Chy Phlegmatick, and the blood also. If little be there, the Guts will be the easier griped. The juice of the Sweetbread being very sharp, will cause great Appetite, better digestion than nourishment (which more depends on the good temper of Choler) it will gripe the bowels, and if its soure co-

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urs get to the heart, it will much
ate the vital Effervescency there,
d cause Swouning-fits, &c. Get-
g to the Brain they will breed the
lling-Sickness, by pricking the
erves.

24. As these Humours are joint-
or severally more affected, and
uble one part of the body more
an another ; so, various distempers
se, too tedious to set down here at
ge ; and which you may see illu-
ated in the following discourse,
d also in the Authors first book.

I shall conclude with telling you,
t I have exposed my Oily Vo-
tile Salt to sale only at my bro-
ers, Mr. Robert Gower, Apo-
cary, at the Black-spread-Ea-
e in Fleet-street, and at my
okfellers shop, and in no other
ce in London : with printed
di-

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directions for its use. And for satisfaction could be willing to show any, that I do actually incorporate the Oil and Salt together, and not barely Aromatize the Salt, many pretenders do; which is gross abuse to our Authors Oil Volatile Salt.

O F

Childrens Diseases.

C H A P. I.

Of the JAUNDICE.

1. **W**E purpose to treat in order of Diseases that do frequently happen to Infants, and especially in these colder Countries; with Gods help, beginning with the *Jaundice*, which often appears in Infants soon after their birth, and continues for some days, and again by little and little departs.

B

2. That

Of the Jaundice.

2. That *Infants may have the Jaundice in their Mothers Womb*, is even manifest by this, that sometimes they are born with it, and so *may have in themselves its cause before their birth*, and be born with it.

That an
Obstruction
of Choler,
cannot
cause the
Jaundice.

3. But whether an *Obstruction of the passage of Choler into the small gut* ought to be the cause of the *Jaundice*, let them see, who own no other: To me it seems not probable, because an obstruction must arise from a tough Humour carried to any Vessel with the Liquor that ordinarily runs through it, and greatly aboundeth in the body, being loosened and dissolved in it, and driven thither; and then growing together there, and so making an obstruction.

i. In Infants unborn.

4. Therefore let us see, if such Causes mutually following each other, may likely take place in that Passage in unborn Infants, so as to produce the *Jaundice*.

5. First, None can well deny that a *Tough Humour* may be in Infants
not

not as yet born, that considers, there are many Mothers which do not only abound with tough Phlegm, and have such like Blood; but do daily use, and that to excess, such like Food, which breeds viscous and thick Phlegm. From whence what can be expected, but that Infants born of them, should abound with a Phlegmatic and tough Blood, and all their Humours be very tough and Phlegmatic? so that in this condition there wants not matter to breed an obstruction in such Infants.

6. But that secondly, this Phlegmatic and tough Humour may make an obstruction in the Passage of Choler into the small gut, it is required, that the same be carried thither, either joyned and mixed with Choler, or else confused with it.

7. Where all the blood is more Phlegmatic and tough than is usual; no wonder, if also the other humour and so Choler, become more Phlegmatic and tough; and the tough

Of the Jaundice.

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mour mixed with Choler be brought to the fore-named Passage.

8. I am fully perswaded from dissection of many dead Bodies that Phlegm is bred both of Spittle and perhaps of Snot falling down to the Jaws; and being swallowed, goes into the Stomach, and small gut and sticks unto its sides, and by degrees encreases there.

9. From what is aforesaid it seems evident that the same Phlegm is bred in the Glandules of the Head but hoarded up in the small Gut.

10. Now that this tough and clammy Phlegm may be loosened or dissolved, and being only confused with the Blood; and other humours, may be carried any way and so likewise to the Passage of Choler into the small Gut, requires a Cause effectual enough, and violent; namely *Motion of Body* as vehement as enduring for some time or a *notable heat of the Air*, like that of the Sun or of Fire, to loose Phlegm, and make it fluid; or else

a *plenteous Liquor* being brought to the small Gut, and *dissolving* the named *Phlegm*, and carrying it further.

11. No *vehement motion* of Body, unless the Mothers, can happen to *Infants not yet born*, which whether it can dissolve, and make fluid, and send all over the body not only the humours of her own body (of which I do not doubt) but also of the Infant in her Womb, I confess, I neither dare deny, nor yet affirm.

12. I cannot be brought to believe that the same may be by an *outward heat of the Sun, of Fire, or of a Bath* not only in the Mother, but afterward also in the child; yet I think, an Abortion may sooner be expected, than such a loosening of the Humours in the child, and hence a necessary curding, and lastly the *Jaundice*; but of that curding anon.

13. Much less will it be granted that *any Liquor* can be carried in *plenty* to the small Gut, and there-

in dissolve tough Phlegm : because, although the Mother may drink plenteously, yet no prudent man will so much as Dream of it concerning an Infant, at least in my opinion.

14. For it seems Fabulous that a Child in the Womb should swim it self with the water wherein it swims.

15. Moreover it is a fiction to suppose that so much wheyish matter may go through the Passage of the Sweet-Bread (for I know no other way) to the small Gut of an Infant, that the Phlegm should be dissolved by it, and carried to the Blood, and anon to the * seat of Choler, and the place of its separation.

* Which is the bag wherein Choler is contained.

16. Yet because the plenty of a tough and Phlegmatic Humour, either in the whole Body, or at least in the small Gut, and the carriage of it into the Passage of Choler into that Gut is not sufficient, to make an Obstruction there ; unless, as hath been said, the same Humour stick, and

Of the Jaundice.

9

and grow together, or curd in the same Passage: Let us see, if it be probable, that the noted Humour can grow together and be curded in Infants, ere they be born.

17. *Its growing together* is usually of its own accord, from a cause intrinsecal to the Humour, namely, when the external cause of its dissolving is removed; so Broths that have the consistency of a Gelly, as often as they are dissolved and made liquid, do of their own accord return to their former consistence, and grow together again, being removed from the fire, whose heat did make them dissolve.

18. Yet *the Humour doth not curd of it self*, but by an external cause which so changes it when it is fluid, that having got a solid consistence, it ceaseth to be fluid: So any water is wont to curd in Winter into Ice, and lose its former fluidness.

19. In mans body a tough Humour being dissolved by the outward heat of the Sun, or of Fire, or by mo-

tion of the body, and moved all over the body, when the outward cause of heat, or motion of body ceaseth; it is observed afterward by little and little *to grow together of it self*, and breed an Obstruction in narrow Vessels by reason of its toughness sticking any where.

20. So the same tough Humour being dissolved by much drink taken in, and carried all the body over, is wont *to be curded by outward cold* carelessly received, and *separating Phlegm* especially tough, by *waterish drink* confused with it, and *thickning it more*, and by this means easily stopping it, especially in strait passages, and begetting an Obstruction

21. Yet because it can scarce be granted that tough Phlegm should be dissolved *in Infants unborn*, and carried all over the body; much less can it be granted that it should *of it self* grow together: As which doth presuppose that violent dissolving.

22. Nei-

22. Neither can we grant that the same Phlegm loosened or dissolved in Infants as yet unborn, can be Curded, as presupposing that outward cold doth pierce through the pores of the skin to parts near enough to it, not so easily to parts a great way in the body, and fenced against the outward Air with several coverings: As doth befall Infants in their Mothers Womb, for besides all the parts of the Mother which contain the Womb, the substance of the Womb while it carrieth the Child is thicker than usual, and swelled with warm blood; and also the After-Birth with the water it contains, does defend the Child against the harms of outward cold. Note.

23. Cold drink, which is often the cause of Curding dissolved Phlegm, cannot be suspected in Infants unborn, seeing that the Mother alone great bellied can be supposed to take in cold drink: But I cannot think that any man using reason can be so mad, as to affirm, that such

such liquor drunk by the Mother can go to the Infant, or like our ward cold can cause Phlegm dissolved in it to Curd in the Passage of Choler to the small Gut.

24. For although I could yield that cold liquor drunk in plenty and carried to the Stomach, or also to the small Gut, might from thence pierce like cold Air to the passage of Choler into the Gut, and again Curd the Phlegm that was before dissolved: yet can I not grant, nor apprehend, that it can do the same in Infants unborn, seeing that it hath no way to go to the passage of Choler in them (at least in my opinion.)

25. Now if such an obstruction of the Passage of Choler into the small Gut, cannot breed the Jaundice, nor be supposed to be in Infants unborn, then we must assign another Cause of that Disease, at least in them.

2. Nor in
Infants
newly
born.

26. Let us now see if such an Obstruction can be in Infants newly born.

27. That

27. That we may do it in short, observe first that heat encreased by motion of Body is not to be expected from them, whereby tough Phlegm can be dissolved, if any abound in the small Gut, and be carried to every part of the body: Yet might it be loosened by outward heat of the Sun, or of Fire, as also by Anguish troubling Infants even till they sweat; unless any had rather that the Humors then carried to the small Gut, and especially the juice of the sweet bread being sharper, because of its faulty Effervescency, and vapours raised breeding the noted Anguish, should likewise loosen or dissolve tough Phlegm, and send it to every part of the body; which seems not unlikely.

28. Yet when Phlegm is driven into every part of the body by an outward Heat, or by the above noted internal Cause, by reason the Pores are all over open; if then the body be not well fenced against the coldness of outward Air, or be removed

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moved into cold Air, its tender body may very likely get harm, although he seldom be exposed to such cold, even when the Jaundice doth appear.

29. Seeing therefore such a cold which seldom happens, would rather breed other Sickness, and that the Jaundice daily appears without such a cold, it seems not probable to me, that an *Obstruction* can cause the Jaundice in Infants newly born; so that we must seek for another cause.

Of the
true Cause
of the
Jaundice.

30. And if any curious of truth should enquire, *What can be assigned the Cause of the Jaundice?* To the clearing of it, we must make a deeper search, and so conclude, what we have to say.

31. We begin this search from that *Yellow Colour* which appears in the Jaundice, not only in the Skin but in the very Flesh; so that this disease doth not only affect the outside of the body, but its Habit also

and most inward parts, and doth most manifest it self in Urine.

32. Now that this *Colour* proceeds from *Choler* too plenteously confused with blood, is proved both by the natural Colour of *Choler*, and by the pale colour of their stools.

33. For there is nothing in mans body, which could die it Yellow but *Choler*; *We do* not then without cause derive that Colour of the Jaundice from *Choler*.

34. Yet because the Stools of people in health are always more or less died, but not so in the *Jaundice*; it is but reasonable to think that *Choler* moves not at all, or very little into the small Gut, or at least is so changed, that it cannot die their Stools of the natural Colour.

35. Let this be supposed as by Anatomy it is proved, that *Choler* hath a passage from its bag to the heart through the Liver, which way (some of it goes alwaies in people in

in health, and) it may all go, when any have the Jaundice.

36. *Choler thus changed in the Jaundice, seems not to be increased in sharpness; because neither pain, nor pricking is felt in any part of the body, unless when it begins to be cured: and therefore is faulty some other way.*

37. Which fault that it may be known, we must observe, that *Choler naturally is not only slightly confused, but most intirely mixed with the Humours it meets with both in the small Gut, and in the Blood or right Ventricle of the heart, and that so as it is impossible to be separated again from them; which is performed by an Effervescency with a sower humour in both those places.*

38. Yet because that mixture of Choler with the other humours seems to be wanting in the Jaundice, that Effervescency also is a wanting, or at least in some measure hindered.

39. Now

39. Now if the Effervescency of Choler with the other Humours be altered and notably lessend in the Jaundice, we must see, what maketh Choler to perfect that Effervescency, and what can lessen it.

40. And it is known unto all, that an Effervescency is caused by the meeting of a Sowre, and of a leese Salt humour, or in as much as they partake of these two contraries.

41. And if any shall examine Choler, and confuse it with Sowre humours, and Salts, he may discern, that Choler helps on this Effervescency by vertue of its leese Salt, but very much temper'd, to make the Effervescency mild and friendly to nature, and not vehement in the body.

42. Wherefore let us see how this leese Salt in Choler may be affected, so as to become unfit for that Effervescency.

43. For we find, that the more soure and sharp the leese Salt is, it is the fitter for an Effervescency; and the

the more it is any way made dull, becomes the more unfit for an Effervescency.

44. Now many things *make the sharpness of a lee Salt dull*, as first any thing that is *oily and fat*; Secondly, any thing that is *volatile and Spirituous*; Thirdly, any *earthy thing*.

45. And on the contrary *Fire whets and increaseth its sharpness*; and so the keeping a lee Salt long in Fire, makes it sharper, and more fit for a strong Effervescency.

46. *Water promotes the Effervescency of a lee Salt*, if a small quantity be joyned to it; but if *much* added, it *drowns* it.

47. Now to apply this to our purpose, who so considers *Choler* may find it hath much *Oile and fat* naturally; by reason of which, (*making its saltness dull*,) we cannot observe a fierce Effervescency in one in health.

48. Again whosoever shall observe those Nerves which reach to the liver

liver, and observe how readily Choler mixeth with any thing, which could not be unless a volatile spirit were mixed with it; must own that *Choler* consists much of a *volatile Spirit*. For by reason of its Oiliness it could not mix with any thing, unless it had also a volatile Spirit: By which also the Salt in Choler is more temper'd, and thence there is a more milde Effervescency in one in health.

49. There is also some though not much *Earth* in Choler, else would it be less moveable; whereas it is very moveable, and joyns it self to every thing, yea it makes other things moveable, as Colours to paint withall.

50. Which *Earth* in it, though but in a small quantity, breaks the violent Effervescency of Choler in an healthy state.

51. We cannot suppose that such a Fire, as can burn, and sharpen the lee Salt of Choler, is in mans body, no not in a preternatural state: seeing
C that

that if any rightly examine the matter, he shall find that *Choler* is the chief Cause of any flames, or great heat in mans body, whether in a natural, or non-natural, or preternatural state.

52. Not but that there is an external Heat, which may be caused by the *Fire* or *Sun*; by which it is sufficiently known that all the humours, and so *Choler* also becomes more sharp.

53. Wherefore when *Choler* is more sharp than ordinary in its proper sharpness; it must proceed from an outward heat, either of the *Sun* or of *Fire*.

54. I said in its proper sharpness, distinguish it from an accidental sharpness, which comes after a preternatural effervescency from a very sharp Sowre Humor. For when a very sharp Sowre Humor meets with *Choler*, and causeth an effervescency with it, it causeth a separation, and gets to it the sharpness of the parts (which make *Choler* more milde) from its

Salt

Salt parts, which wanting those that make it mild, become sharper than before, and by that means increase a more sharp and more hurtful effervescency.

55. Seing then that *no internal cause can increase the sharpness of Choler, but a Sourre juice, which makes Choler by its mixing with it sometimes Cankered, sometimes Black;* it is evident what can set Choler in a flame.

56. Which being premised, let us consider; *what can render Choler (especially in the Jaundice) more unapt to mix it self with the other Humours:* Which that we may do, observe, that oft on a sudden it happens from a bite of a Viper; which kind of Poyson, because it doth its work quickly, must be very moveable, and subtile; and so is of a volatile nature, and consists of a volatile spirit.

57. And that much of a volatile spirit can breed the Jaundice, mixt with Choler, is clear in as much as strong bodied wine, and especially Brandy

doth often beget the Jaundice in such as drink it, and do much neglect solid meats: For Brandy being plentifully drunk doth not only encrease a volatile or animal spirit in the body, but by little and little makes all the Humours; and so Cholera more volatile, and spirituous, and moveable: till at last by long abuse the Constitution and * Consistence of the Blood and Humors become faulty, and the Blood becomes like whey, and loses its clammy nature.

* Or
thickness.

58. So that I am fully perswaded that Cholera in breeding the Jaundice becomes too spirituous, and unfit to carry a sufficient Effervescency by the piercing poyson of a Viper in a little time or by too spirituous drink long used more slowly.

Object.

59. Now if any should say, seeing Cholera may be so changed, to cause the Jaundice without a stoppage of it into the small Gut: it may then cease to move thither, where it shall have at least a weak Effervescency.

scency with the juice of the Sweet-bread, why then should not the stools be died by the same, as at other times?

60. Whom that I may satisfie ; *Ans. 1.*
I answer, First, that the stools are not always alike white in the Jaundice ; whence I judge, that Choler is sometimes more, sometimes less mixed with the stools in Jaundice, and so more or less dies them.

61. Secondly, *Choler is not alwaies* *Ans. 2.*
alike affected in the Jaundice, whence it is less or more mixed with the stools, and accordingly dies them.

Thirdly, That *their stools be duely* *Ans. 3.*
died by Choler, its sufficient Efferve-
scency with the Juice of the Sweet-
Bread must proceed, by which its parts
are separated from one another, and
those which die are joyned to the
stools.

62. Fourthly, *If while the Jaun-* *Ans. 4.*
dice continues, Choler be more spiri-
tuous, and volatile, and so more fluid
and moveable, it may the more easi-
ly pierce through the smallest vessels

where it passeth through the Liver; especially if it be drawn straight, or at any time its passage into the small Gut be stopped; wherefore moving forcibly to the Liver, it may persist in the same, not using its proper way to the Gut.

63. For it may so happen that if the Passage of Choler into the small Gut be not wholly stopped, it may be straightned by the Phlegm (which is in the Guts) being dawbed about it: Or the same* Passage may contract it self narrower by being over full with Choler; by reason of which it may be denied passage to the Gut, and therefore must move upward to the Liver, and through the liver to the Blood, and going with it to the right Ventricle of the Heart makes a small Effervescency with the descending and Lymphatic Blood, after which it is more properly confused, than mixed therewith; and as the Blood goes all over the body, it separates from it and dyes the body, making every part unfit for natural nourishment; whence a Dropsie often follows the

* Like those who keep their Urine so long, till they cannot make water.

Jaund.

Jaundice, unless it be cured speedily.

64. Although I do not think that a stoppage of Cholers passage into the small Gut is of necessity required to breed the *Jaundice*, yet may it sometimes occasion the *Jaundice*; for by the stopping Choler in its natural motion to the Gut, Choler grows *more spirituous*, by the greater access of spirituous parts thither, and by further heightening the parts of which Choler is made.

65. Which is evident from this, that many before the *Jaundice* appears, feel great Anguish in the right side of the Belly where this aforelaid Passage is, *a great Sorrow, or abuse of Phlegmatic meats* having preceeded.

66. Wherefore to sum up our answer in short, we judge, First, That the stools do not alwaies want the die of Choler, though they be paler. Secondly, they are least died, when Choler is worst affected. Thirdly, They are less died, when Choler makes but a little Effervescency.

cency. Fourthly, They are less died, when Choler moves little to the Guts, and almost all of it goes to the Liver and the Blood, whether it be by reason that the Passage into the Gut contracts it self narrower; or because that Passage is stopped and filled up by Phlegm.

The over
spirituous-
ness of
Choler
causes the
Jaundice.

Its cure.

67. From what hath been said, we have proved that the Jaundice may be bred (without a stoppage of the Passage of Choler into the small Gut, and) by Choler being too Spirituous, and therefore unfit to make an Effervescency, being not imbodied but confused with the Blood.

68. The cure therefore of the Jaundice must consist in correcting Choler over volatile and spirituous, which is done by Oily and Fat things, and by such as procure sleep, and sometimes such as stupify.

69. By Oily and Fat things, as Hemp Seed boiled in milk, and taken a few times; as also both Venice and common Sope dissolved in warm milk, and taken a few times,
both

both which will happily cure the Jaundice.

70. Sope cures the Jaundice, First, By its fixed lee Salt, which being joined to Choler, corrects and lessens its volatility, taking into it self part of the volatile Spirit abounding in Choler.

71. Secondly, By its thick, not volatile and Aromatic Fatness and Oile, in as much as it makes dull the sharpness of the volatile and spirituous salt which is in Choler.

72. The same may be said of Hemp Seed, which being Oily and Fat, produceth the same effect.

73. We also commend Saffron in curing the Jaundice; and seeing the Fat Saffron is best, we cannot suppose that overfatness of Choler as well as its over-spirituousness can breed the Jaundice. Note.

74. For Saffron is easily joined to a volatile Spirit, by reason of which we readily make its Tincture and Extract.

75. By the same Saffron, and its extract, the Animal Spirits use to be

be settled and become drowsie, a sweet sleep following.

76. *Opium* that powerful allayer of the Animal spirits, is Oily and Fat making the Animal spirits drowsie, and retarding their motion.

77. Thus volatile Spirits may be chained and bound by Fat and Oily things yea and be composed to rest: whence it is evident, that if these Spirits be joyned to Choler in too great plenty, or therewith exalted, that fortified in its operating, they may breed the Jaundice by making Choler too volatile, and moveable; which volatility and moveableness is cured by medicines that are Oily, and cause Rest. Which is also apparent from Chymical fixed Sulphurs which fix the volatile spirits.

78. If the Jaundice be caused by the bite of a Viper, or any other Creature, we must, (besides the aforesaid correcting of Choler) both amend and again expel that Poison.

79. To which purpose sundry Opiums are used, as, Treacle, Mithridate,

late, *Diascordium*, &c. Which by the Opium and other things wherewith they abound, do not only amend the spirituous volatility of Vipers Poyson; but moreover by their many sweating ingredients expel the same through the Pores of the Skin; and correct the fault in Choler also.

80. Where note, that *Treacle* having Troches of Vipers in it, doth the sooner mix with Vipers Poyson, and expel it forth, seeing they are of a volatile nature, and provoke Sweat.

81. Hence, Chymists do commend, and not without cause, the Salt of Vipers, which is volatile.

82. They also commend, *diaphoretic Antimony*, and any Mineral Bezoard, by which Choler over-spirituous is fixed; and any Poison fit to be sweated out, is expelled.

83. But if Choler be hindred in its motion to the small Gut, by a stoppage made by tough Phlegm in the Passage of Choler, and so it become more spirituous, and breed the Jaundice; the same Phlegm must be cut and purged

ged out both by *Aromatical* Medicines and such as abound with a volatile Salt, as also by such as purge *Plegma* after which, the afore named Medicines may be used, sometimes moving a gentle sweat by Bezoard.

To apply these more closely to *Infants* newly born, we judge that the *Jaundice* arises in *Infants* not yet born, or newly born from Choler too Spirituous, though never a little offending; wherefore all it is soon cured in the most of them.

85. For one Grain of *Saffron* alone given them in their Mothers or their Nurfs, or Cows Milk, once or twice a day, often cures them of the *Jaundice*.

86. To the same purpose a grain of Mineral Bezoard may be given by the taking either of which, a sweat do not alwaies break forth yet is there a breathing forth by insensible transpiration.

87. If the child be costive, it may be loosened by *Rhubarb*, and specially by the known *Syrup of Scurvy* with *Rhubarb*, instead of which *Simple Syrup of Rhubarb* in this case may be used.

88. We therefore use *Rhubarb*, to draw Choler down to the Guts, and carry it out; because if any of it be carried thither, the rest ceases to be too spirituous.

89. Moreover Choler is sent to the Guts easily, copiously, and powerfully by Medicines that purge Choler, but not without them: unless sometimes against nature it move thither furiously, in the disease Cholera *, which is often deadly.

* When one purges and Vomits Choler.

90. Which disease differs much from the *Jaundice*, not to name other differences, seeing in the *Jaundice* Choler moves to the Liver; but in Cholera it moves to the Gut, and is sent forth upward or downward.

91. Several

91. Several other Medicines are commended in curing the Jaundice as Radish, Salentine, Madder which the Dyers use, Shavings of Hartshorn, Ivory, Sage, Wilde Rocket, Cumine, Goose dung, filings of Steel, Squills, Sulphur, &c. The most of which may be applied to our purpose, and do good according to our opinion; which yet are not so safe for Infants as people of age.

And so much for the Jaundice in Infants.

C H A P. II.

Of Gripes in the Belly.

THese Gripes do frequently trouble Infants newly born, so that few escape them.

2. Which Gripes in the Belly may proceed from a double Cause, either from *Wind*, or from *Sowre* and *sharp Humours*.

3. That *Wind swelling the Guts* may breed Gripes in the belly, is clear; because, First, when *Wind gets vent*, the gripes are abated: Secondly, the Pain goes away, only when the *swelling of the Belly falls*: Thirdly, the *Guts are swelled with wind after birth*: Fourthly, *Medicines which dissolve Wind*, cure the Gripes.

4. It is also evident that Gripes may

may be caused by *sowre and sharpe Humours*, fretting and biting the inner side of the Guts; because, First *their stools then have a sowre savour*. Secondly, *Medicines that correct sourness*, cure the Gripes.

5. *Wind* in Infants, as well as people of years, hath for its matter *Phlegm more less tough and clammy* and *Choler* for its efficient Cause; which the sharper it is, breeds wind more powerfully and plentifully.

6. The fault of both which Humours arises from *the bad diet of the Mothers*, for the most part; in which the most of Women indulge themselves too much, having many Counsellors to perswade them, that whatsoever a Woman with child does eat or drink, cannot hurt her if she do it with delight: Contrary to daily experience.

A caution
to women
with child

7. I confess indeed, we must make a sleight of what they greatly desire; but must endeavour, that then they be not excessive: A strong desire would have something,

not to excess, of what it longs for.

8. Wherefore they are to be advised, that they would pity the children they bear, and moderate their appetites, lest, if they should too much indulge themselves, their Infants should suffer much harm by their mothers faults; although they seldom hearken to Physicians advice; rather following their own fancy.

9. *Tough Phlegm* is bred by Meats of a thick juice, and by gluttony; as also cold Air, thin Cloaths, &c.

10. *Sharpness in Choler* is caused by heat of the Sun, very hot Spices, the Spirits of Anise, Juniper, * Lo-
vage, &c. used too much.

* Which
is much
used in
Holland.

11. *A sower humour* is bred chiefly by sower sauces, and fallers, hearty sorrow, Northern wind, &c. in which while they indulge themselves, they suffer harm.

12. To the breeding of these three humours untimely Fruits help greatly, which they greatly affect.

13. Although Mothers may offend, their innocent children shall

D

smart

finart for it, with shrieking & crying, yea with wresting and moving the whole body; and at last by the Falling-sickness, that I may pass over the afore named signs, which manifest the Griper.

The Cure.

14. Now the Cure of those Griper is partly by *discussing* the aforesaid *Wind*; partly in *correcting Phlegm and Choler*, and sometimes by *purg- ing* them out, partly in allaying and *easing the Pain*.

15. Wind in Infants is discussed by Fennel, Mint, Parsley waters, &c. also by Spirit of Nitre; if they be taken inwardly; as also by Oyls, and Aromatical * Ointments, the belly being anointed therewith; also by † powders, put into bags, and laid to the belly, being made of leaves, flowers, and aromatical seeds. Clysters also may be used of such like ingredients, especially if the child be costive.

* See the first Book, ch. 14.

q. 56.

† For ex- ample,

Take Sage, Marjoram and Mint leaves of each a handful:

Rosemary and Sage flowers, of each half an handful: Sweet Fennel seeds and Cinnamon, of each two drachms, put them in a bag, when boiled, and to four ounces of its liquor add a drachm of oil of Rue, and make a Clyster.

16. Such

16. Such things as gently make
drowsie and stupisie do ease pains arising
thence: Syrup of white Poppies, of
Diacodium, and such like, adding
(if pain be very great) a little Laudanum.

17. Medicines that ease pain and
disperse wind are best mixed, and
taken in form of a Potion or mixture,
always giving Infants what is most
grateful *.

* As for
example,
Take Fen-

nel and Parsley waters, of each an ounce, Mint water half
an ounce, Spirit of Nitre six drops, Syrup of white Poppies
half an ounce, Laudanum one grain, Spirit of Salt armoniac
eight drops: Mix them, and observe §. 19. for direction.
If the Spirit of Nitre be dulcified, you may put twelve drops
into the Mixture.

18. To which Mixtures if you
add a few drops of Spirit of Salt
Armoniac, or any other volatile and
aromatic Salt they will be more effe-
ctual and better.

19. And if pain be very great, you
may safely add one grain of Laudanum to three or four ounces of the
Mixture, and give the child a little
spoonful often till his pain and cry-

ing abate, and he take rest.

20. Mean while, when the pain is abated, such Medicines as cut *tough Phlegm* must be used, and those will discuss wind, wherefore they are the more profitable, as not only discussing Wind, but also preventing its rise.

21. *The sharpness of Choler is temper'd* by mild sower things, as Spirit of Salt dulcified, and best by Spirit of Nitre, whether pure, or dulcified with Spirit of Wine; seeing it not only corrects Choler, but also cuts *Phlegm*, and does disperse the Wind. And seeing it does strongly fix things, it also prevents breeding of wind.

22. When *Phlegm is cut*, it may be commodiously purged by Manna, the Solutive Syrup of Roses with Senna, or that of Senna, that Dracnicum, &c. also by the aforesaid Clysters.

23. When Choler is corrected and temper'd, it may be purged by Syrup of Roses uncompounded, and especially by that with Succory and Rhubarb, and by Syrup of Roses with
Rhu

Rhubarb, two, three or more drachms (being mixed with a little of the aforesaid waters) according to the age of the child: And it is safest to give purges in a little quantity, because if the first dose do not work, more may be given; and so the (strength of the * Medicine) be tryed without danger.

* I rather think it should have been the (temper of the body.)

24. For it may happen to Infants as to people of years, that all are not alike easily, speedily or largely purged by any Medicine: for which cause, lest they should get harm by a strong Medicine, it is better to give a gentle Purge at several times, and but a little at a time, rather than together and at once. For a Physician cannot be too cautious, seeing children are tender, and may die upon a small occasion.

25. The humours thus corrected and purged, must be prevented of breeding again, by using such meat as breeds good blood, and neither encrease Phlegm nor Choler, adding (where choice cannot be had) such

Medicines as will correct the hurtful humours that may probably arise from their meat.

26. It is therefore good, to boil Anise, or sweet Fennel-seeds in the Childs milk; or to put grated Nutmeg into their drink boil'd with bread: whereby the rise of Phlegm will be prevented.

27. If the Childs belly be much swelled with wind, and costive, it is best to give a Clyster before the Purge; which Clyster must be made of *emollients* and *such as expel Wind*, with some *gentle purger* in * it; whereby *their hard excrements will not only be softened, but the Wind it meets will be expelled, or rather as it were choaked, and settle into the Clyster, and anon be sent forth, as also a fit way prepared for the humours and wind that will follow from the upper Guts.*

* As for example, Take Marsh-mallow roots two drachms, Mallow and Rue leaves, of each an handful,

which boil in barley-water, strain four ounces, in which dissolve half an ounce of the Catholick Electuary, Oil of Roses two drachms, and give it blood warm.

28. By this method in a little time the Wind may be cured, which cannot be on a sudden.

29. But if *sowre Humours* be joyned to the foresaid Wind, or be observed alone, the Cure will be more difficult.

30. This *sowre humour* has its original in the *Sweet-bread*, and is encreased in *Infants unborn*, by their Mothers abuse of *sowre sauces* and *meats*, unripe and *sowre fruits*, enduring cold North winds too long, and by deep sorrow, or a fright; by which last, although a tart humour be bred, yet is the *sowre* also encreased.

31. The same *sowre humour* may be increased in *Infants after birth*, when their Mothers or Nurses use the fore-named *sowre sauces*, and *liquors*, &c. too much; the harm of which is greatly conveyed with the milk into sucking Infants: let none think, that the *Infants health* wholly depends upon the *womans milk*; which is to be esteemed before all other food, if it be healthy and laudable;

dable ; which moreover becomes easily and often very hurtful, when the Mother or Nurse is unhealthy, or doth not use a good diet, whether by their own or others fault : especially any vehement motion of their Mind hurts the Infants.

32. *This sowre humour also may increase in Infants already born, and so be moved, and sent into the small Gut, and cause Gripes, not so much by a cold Air only, as by sharp and troubled North Winds.*

33. Seeing Infants are not subject to commotions of Spirit, nor can readily get hurtful Food, they seldom err in other circumstances of Diet.

34. Whatever then be the cause of a sowre humour encreased in them, the Cure of those Gripes will consist, 1. in removal of all outward Causes. 2. In correcting the sowre humour, whether in the Mother or Nurse. 3. In amending that sowre humour in the Infant.

35. By outward Causes we mean, 1. Sowre Meats and Sauces and Medicines,

ines, too much used by the Mother or Nurse, which they should take heed of, or use less.

36. 2. Great disturbance of Mind, and especially Sorrow and Fear, yea Anger also; the occasions of which should be avoided, and by-standers should remove.

37. At least they should endeavour that those Passions last not, and while they are, *the Child should not suck*, but that milk be drawn out, and not given to the Child.

38. Those Infants which enjoy health without womans milk, are free from such dangers; But if the child do languish, or pine for want of the breast of its Mother, a healthy and well-disposed Nurse should be got; seeing care is to be taken no less of the Mind, than health of body, in getting a Nurse.

39. For it is strange and as true, *that Infants not only suck the constitution of body whether good or bad, but also the manners of mind whether good or bad with the milk: and do imitate their Nurses more than their Mothers Constitution*

A special
Note for
Mothers.

stitution of body, and Manners of Mind.

40. Which being neglected by many, their Infants are wronged by the Nurses milk unhealthy upon several accounts: Which I now observe, the young Physicians in their practice would study to prevent so great evils.

41. By Outward Causes we mean 3. cold and sharp air; also cold Water affecting any part of the Mother or Nurses, or the Infants Body, which must be avoided as much as may be because that cold whether of Air or Water pierceth quickly to the inward parts and in a Woman much changeth the Milk; but in the Infant goes into the inward parts of its belly, and breeds Gripes.

42. This Sourness in the Mother or Nurse ought partly to be mitigated partly to be destroyed, and if it be much plenty, it must be carried off by Stool, and by Urine, and through the Pores of the Skin.

43. A Sowre humour is mitigated both by Spirituous and Oily things, of which before.

44. A Sowre humour is destroyed by fixed and volatile Salts, both apparent and lying hid, as in Chalk, Coral, Pearl, Crabs eyes, Blood-stone, &c. of which also before.

45. The Sowre humour being thus tempered is purged by medicines that purge water, often named before.

46. The Sowre humour is carried forth with the Urine by Aromatical medicines provoking Urine, which do also correct its sharpness.

47. The Sowre humour is expelled by Sweat, by Aromatical and Rosinous medicines that cause Sweat, as Lignum vitae, Sassafras, Juniper, Box, Oak, and such like woods, set down also elsewhere.

48. This Sowre humour in the Infant may be temper'd and corrected by the same, but gently.

49. To this purpose I much commend Powdered Coral, Pearl, Crabs eyes, and sometimes Chalk, which may

may be given once, twice, and (if need be great) thrice a day; and two or three or four grains at a time in any Milk, or which is better in an *Aromatical mixture* *, which will correct the Sowre humour.

* As that in §. 17. set in the Margin; or in Fennel or Mint water, sweetened with any Cordial Syrup.

50. At which time you must neglect *things that make drowsie*, nor *those that stupifie*, in a small quantity, as which temper Sowreness, and potentially ease Pains.

51. By these or such like medicines the Gripes are well cured, if used a while: For they are known to continue some months, although sometimes abated, until at last they be cured.

CH A

CHAP. III.

Of a Green Purging, with a Sowre
savour.

WE have already explained
the Jaundice and Gripes
in the Belly; which because they are
often attended with a *green purging*,
smelling sowre, we think fit to consider
next.

2. Note that this Purging for the
most part hath Gripes in the Belly
conjoined to it, and is seldom with-
out them, and does not continue long
without them.

3. We affirm that this noted green
purging proceeds from Choler cor-
rupted by a sowre-sharp-humour*, &
turned green; and such like changes
of colours are not unknown to Dyers.

* viz. the
juice of
the Sweet-
bread.

4. Where

4. Where note, that *their stools are often white, but after a while turn green*, by Choler turned green and mixed with them.

5. Which may be, either because that sowre humour has not finished its work in changing the colour of Choler, or because its colour is not soon changed, while it is in the warm body; but presently, in the open Air.

6. Now this *Sowre humour*, which changes the yellow colour of Choler into a green, and makes their stools green, is very *sharp*, and that is clear from their strong smell: upon which account it gripes, of which see the former Chapter.

7. And seeing this Sowre humour is very sharp, it is worth enquiring why it does not always gripe? To which I answer that it may be so
1. when the Guts are plaistered in the inside with much rough Phlegm, by which the Sowre humour is hindered from touching or fretting them, which is usual, after that Phlegm

loosened and removed by the said
Sowre humour.

8. 2. It may be so when there is
much Food taken in, which does so
sink up that Sowre humour with
it, so that none or little of it re-
mains in the Gut, but all of it is
mixed with that Food.

9. We spake at large in the former
chapter of the Causes breeding a
Sowre humour, which seeing they
may be referr'd hither, we shall not
again repeat.

10. And shall proceed straightway The Cure.
to the Cure of this disease, that is,
correct and temper a Sowre humour,
which done, no inconvenience can
follow, For there is danger, lest if
the *Gripes of the Belly* be not yet felt,
they may soon follow, and many
times the *Falling-sickness*, and *Death* it
self.

11. We proposed (in the former
chapter §. 49.) *those things that*
temper and correct a Sowre humour, to
which we add *Bezoar Stone*, the Ori-
ental much better than the Occiden-
tal;

* And in this case the Authors *Diascordium* best of all; as described at the end of his first Book of Practice.

* Described in the said first book, ch. 13. §. 51.

tal; and *Mineral Bezoard* much better than either *, whether it be made of *Antimony*; or *Silver*, or *Gold*; so *Diaphoretic Antimony*, any *Sea Earth*, all which may be used as the in the aforesaid §. 49. of the former Chapter.

12. Nor will it be improper to give a gentle Clyster, which will dissolve the excrements, if they be too hard, or if a biting sharpness be observed in them, to drink it up, or alter its sharpness. To which purpose may be used a Clyster *, *Cows Milk*, the *Yolk of an Egg*, and *Venice Turpentine*. Where a *Sowre humour* will soon join itself, as we find that it *Curds milk* especially if as warm as a Clyster is given.

And thus we have finished this Chapter.

C H A P. IV.

Of Belches, the Hicket, Loathing,
Pain at the Heart and Vomiting,
curded Milk especially.

1. **C**Hildrens bowels are not only afflicted with Gripes, and green Stools; but their Stomach is often ill affected by *Belches, Hickets, Loathings, Heart aches*, and manifold Vomitings.

2. *Belches* are bred by *Wind*, both *sharp* and *slowre*, and *tough*, and easily dissolved; of which in the second Chapter.

3. Their *toughness* appears from a difficult and painful belching, often coming forth with a crack.

E

4. Their

4. Their *sharpness* and *sourness* is manifest to the Noses of standers by.

The Hicket
et what.

5. The *Hicket* is a convulsive motion of the Midriff returning by short spaces, yet not continually afflicting, as we observe is wont to be in the Falling sickness, in which the shaking of the limbs, lips, eye-lids, eyes, or of other parts is continual, and endures; which the Hicket doth not.

How it
differs
from the
Convulsi-
on.

6. And if any should enquire after the reason of this difference; My answer shall be, that *in the Hicket* the motion is commonly *in the upper orifice of the Stomach*; but in the *Falling-sickness in the beginning of the Nerves*: whence as the motion here is continual, and that by turns, of necessity there follows a continual Convulsive motion, that is, reciprocal or by turns, upon the opposite Muscles: But in the Hicket, because the upper orifice of the Stomach is hurt, the Midriff is likewise affected and hindered in moving upward, and then constrained to contract it self downward,

ward, and that sooner, slower, more strongly, or gently, as that motion is greater or lesser.

7. The motion is *more grievous*, when *the wind* is both *sharp* and *tough*; and less grievous, when the same wind is moderate, or less tough.

8. Therefore this motion of the Stomach, seeing it is helped only by the motion of the Midriff downward, and the drawing it upward doth not follow, no wonder, if there be *not a reciprocal convulsive motion of the Midriff in the Hicket*, but *only a contracting motion*, if we may so speak.

9. For here is not a Convulsion, otherwise the Midriff would remain in the same state; but a Convulsive motion, because the Midriff soon ceaseth from its violent, and forced contraction, although that forced motion be not reciprocal, as is observed in other convulsive motions.

10. Seeing therefore that the Midriff is affected by the Stomach ill affected, fretted and moved, it is only so much

moved by force, as to serve it, that is, in moving it self downward; by which motion the Stomach is after a certain manner pressed down, and is helped in sending up any troublesome thing that is in it; which is expected in vain by the motion of it upward, as which helps not to cast forth any thing in the Stomach.

11. What I have newly said, is apparent from the scituation of the body, and especially of the belly to promote a discharge of Belches, or any humours out of the Stomach; for then we are wont to bend the whole body forward, and to lift up our legs, thereby to straiten the belly, and press it, the more to straiten the Stomach; which the motion of the Midriff downward doth likewise promote.

12. The Cause therefore of the *Hicket* is commonly a *sharp Humour*, or *Vapour*, as also *Wind* any way, but especially by its sharpness, gnawing and moving the upper orifice of the Stomach.

13. (I cannot think, that the Hicket can be caused without sharpness in those vapours, seeing we often belch tough Wind, and have no Hicket, which could not be, if by its toughness it could vex the upper orifice of the Stomach, and breed the Hicket.)

14. Now this sharp Humour, Vapour or Wind arises from any thing lately taken in ; although more frequently it proceeds from Humours, already in the body, and flowing into the small Gut, and there making a wrong effervescency, after which some part of it gets into the Stomach, or breeds sharp Vapours, or Wind, which likewise tending thither may cause the Hicket.

15. Oftentimes we find that a *Loathing*, and *pain at the Heart* accompanies the Hicket ; and are sometimes without it.

16. *A Loathing depends on the volatility of the Humours or Vapours ; A Pain at the Heart on their Sharpness.*

Loathing
how it
differs
from Pain
at the
Heart.

17. Each may be caused by things taken in (as we said of the Hicket) rising from the small Gut to the Stomach.

Vomiting
what.

18. *Vomiting* is a discharging of what is in the Stomach out at the Mouth.

19. All *Vomiting* is a *preternatural Motion of the Stomach*; for none in health vomits: seeing that the *Natural Motion* of the Stomach begins at its upper Orifice, which by a kindly contraction of it self thrusts whatsoever is in it through the Pylorus, (that is, its lower orifice) to the Guts.

20. For volatile spirituous things need no preparation in the Stomach; which if they do not meet with any thing in the Stomach to stop them, are straight carried down to the Guts, and from thence to the Heart; whereby the Sick are so speedily refreshed, though never so weak before.

21. Again other things have need to stay in the Stomach, to be *changed*

into

into Chyle, which is done by *Fermentation*.

22. By which change our food is prepared to let those parts useful for nourishment be separated from the excrements in the small Gut.

23. For the parts of mixed Food, as well as Medicines, are so closely mixed in many, that they cannot be separated from one another without due preparation, whereby they bring that desired and expected benefit both to healthy and sick people.

24. When this natural preparation of Food and Medicines is perfected in the Stomach, the Stomach contracts it self at its upper part, gently forcing downward what is in it, to the small Gut, which by its peristaltick motion it still forces lower along the Gut.

25. And while food is thus forced down, both Choler and the juice of the Sweet-Bread is mixed with it, by which rightly making an Effervescency both among themselves, and with the food, there is promoted

a laudable separation of useful from the unuseful parts ; but if the said effervescency be faulty, either by the fault of Food, Choler, or the Juice of the Sweat-bread, it often falls out, that thence arise sharp Vapours, Wind, or such like humours, by which the small gut being potentially moved straitens it self more narrowly, and with speed drives forward what is in it by straitning it self, but denies passage downward to what are above : which being sharp, and thereby moving the Gut, give occasion of changing the peristaltic Motion ; which carries them upward which were moving downward, and being brought into the Stomach, cause it to loath, and to vomit.

26. Vomiting in Children newly born is commonly more caused by bad humours in the body, and so brought into the small Gut, than by Food ; because they commonly have kindly not hurtful meat.

27. These

27. These bad humours are Choler and the Juice of the Sweet-bread meeting in the small Gut, which by reason of their sharpness and spirituousness cause vomiting.

28. By their Sharpness they make too potent an effervescency, and fret the guts, and force them to change their peristaltic Motion.

29. By their Spirituousness they move more freely upward, and more potently provoke Loathing and vomiting.

30. The Cure of Belches will be the same which we gave of Wind before *.

The Cure.

* In Chap. 2. §. 17.

31. Tough and sower Phlegm being the matter of which they are bred must be corrected † and altered, after which, if there be much in the body, Phlegm must be purged †.

† Of all which see Chap. 2. §. 19. &c.

32. Also their Efficient Cause Choler, being too sharp must be † temper'd, and if it abound, must be purged †.

33. Lastly, Wind it self must be discharged †.

34. The

34. The *Hicket* having the same cause must be cured by the same remedies †.

35. Among other things I have observed that Mint and its Water is very good against the Hicket.

36. A pain at the Heart must also be cured by the same Medicines †.

37. Only observe this, that such as stupifie † must be added, which will not only allay pains, but more over temper the sharpness of the humours, and vapours, and wind, and cause rest.

38. the Cure of *Loathing* and *Vomiting* will not much differ from the manner of Curing the former Symptoms; unless that here it is also convenient to add those things which fix the Spirituousness of the noted humours, especially *Spirit of Nitre*, it be dulcified, for then it may more safely be given to Infants, and does

To all
which in-
dications
the receipt

in Chap. 2. will serve: but if the vomiting be violent, a grain or two of his own *Diafcoridium* (set down at the end of the first book) repeated every hour twice or thrice till it abate, is excellent.

op the faulty effervescency of humours that meet in the small Gut.

Which Opium also promotes, and any medicine made of it, as Laudanum, Treacle, Diafscordium

C H A P. V.

Of the Thrush.

THe *Thrush* is a common distemper among Infants, being *small Ulcers* spread all over the *Mouth*, sparing no part of it, neither the Tongue, Palat, Gums, Lips, Balls of the Cheeks, Jaws, nor the Mouth of the Stomach, no nor the Stomach it self, as far as may be conjectured.

2. The small Ulcers when they appear first, are few, and thin upon the Tongue, and Jaws next the Palat;

lat; afterward they multiply, and grow into one.

3. The Thrush differs from all other Ulcers, in that it is covered with a Scab, whereas others have only filthy matter.

4. Whether it be because the Spittle in the mouth, being then commonly tough, cleaves upon the said Ulcers? or because the skin of the inner parts of the mouth being tough and cleaving more firmly to the parts under it, is not easily parted, and so growing thicker gets the nature of a Scab?

5. The difference of that Scab is different in Colour, Toughness, Thickness, and Largeness.

6. The white colour is best, turning yellow, and then black.

7. That Scab is best liked, which comes easily off, and is worst liked that cleaves fast, and of it self is tough and clammy.

8. That Scab is best liked which is thin, and discommended which is thick.

9. That

9. That Scab which is least is best liked, the broader being discommended.

10. The thinner they stand the better, the thicker the worse.

11. I judge *the Cause of the Thrush* to be sharp and fowre Humours or Vapours, brought upward from the small Gut and Stomach by vomit or exhalation, or with Spittle into the Mouth.

12. That a *fowre sharpness* breeds the Thrush is clear, 1. from a fowre belching or vomiting, which often is the immediate fore-runner of the Thrush.

13. 2. From a fowre taste in the mouth, which fowres any thing they take; as I observed in a Woman, who after she had unloaded her Stomach of sharp humours, the day after had the Thrush, which fowreness was then troublesome in her mouth, when she took any Beer, though very sweet, and not stale; perhaps because the Beer dissolved that fowreness, and so made it affect the taste more powerfully.

14. Note

14. Note that the bitterness of Choler, which alters any taste, unless it be exceeding strong, hinders the taste of sowreness, whether belched or vomited.

15. 3. We are satisfied that a sowre humour breeds the Thrush in Infants especially, both because of their *sowre belches*, and *stools that smell very sowre*, either preceding or accompanying the Thrush, together with *Gripes*, all which abundantly testify a sowre humour, and so confirm our opinion.

16. 4. As also is proved by *Remedies that cure the Thrush*, which are excellent to correct a sowre humour.

17. Which humour, by fretting the skin of the mouth, breeds the *Thrush*, to wit, *small Ulcers*: But may some say, how is it that these Ulcers are of different colours, most times *white*, oftentimes *yellow*, sometimes *black*?

18. Which I answer, comes to pass by the variety of that sowre hu-

our, also of Choler, Phlegm and
little meeting with it.

19. For where the *sowreness* is *spi-* Its various
uous, and *not much in quantity*, and causes di-
the other humours are not much stinguish-
ed.

ulty, the Thrush is thin and soon
des, and does but lightly affect the
alat and Tongue; soon ripening,
on fading, and soon healing.

20. Although the corrupted skin
cannot well fall off, till the new be
own under it.

21. Nor is the skin only once fret-
ed and peeled off, but often the new
is fretted and wasted.

22. The sooner that happens, the
better; the slower, the worse.

23. Which slowness happens by
reason of the toughness of Phlegm
and Spittle, thereby sticking the clo-
se, and taking longer time to fall
from the parts affected.

24. When the *sowre humour* is *spi-*
uous and *plenteous*, the Thrush is
be liked, soon fading and curable,
though the whole mouth be filled
with them.

25. For

25. For that is chiefly to be noted, that the Scabs that ripen soon, be white, light, and come not again often, or cause pain.

26. *The Ulcers are white by reason of a purely sower humour.*

27. They are yellow or black, by reason of different Choler mixed with a different sower humour.

28. *Choler is mixed with this sower humour*, both because each of them are very sharp, and because much Phlegm is joyned to them: by the sharpness they rise more briskly one against another, and so cause a more potent effervescency; by which they are united more intirely: By which Phlegm joined to them, they leave one another more slowly, and continue longer in their Effervescency, and thereby send the more vapours up.

29. The natural whiteness attributed only to a sower humour changed by the alteration of Choler mixed with that sower humour.

30. For as Choler changeth its natural yellow colour into green, or black, according as a different fowre humour is mixed with it ; so on the contrary, changes that chiefly depend on a fowre humour, are altered as Choler mixed with it is altered.

31. I call Choler here altered, not which is alter'd by a fowre humour, but which is altered by Phlegm mixed with it, being more or less tough, whereby the joining of a fowre humour with Choler is various, which thereby becomes closer or looser, and so doth more or less hurt the parts to which it comes.

32. The more Choler is mixed with the fowre humour here chiefly faulty, the more the colour of the Thrush declines from its ordinary whiteness ; and the more of tough Phlegm or Spittle is mixed with the same fowre humour, the Thrush goes the slower away, and takes the more time to cure.

33. Whence it is evident, what kind of Thrush is more, what less dan-

F

gerous

The Prog-
nosticks.

gerous; seeing that some Physicians account any sort of Thrush for a bad sign in all diseases; although they often free us of many diseases, that is, as they appear, the Disease goes away.

34. We may therefore to good purpose review the Prognosticks belonging to the Thrush, and add their reasons.

35. Seeing that the Thrush has its original from a faulty sower humour, and that commonly rising up from the lower parts through the Stomach, and its Mouth seldom brought with the Spittle into the Mouth: We must therefore note it, not only because of the Thrush troubling the Mouth, but also because of that sower humour in the body, which does or may breed other harms; from which we may expect a greater danger of life than from the Thrush, which may shorten life by straitning the jaws, and hindring our breathing and swallowing any thing.

36. Hence it is clear, that the Thrush is only dangerous, when it is

plen-

plenteous and *stubborn*, *yellow* or *black*, and so *dry* or *withered*.

37. I say the Thrush is dangerous, which first is *plenteous*, and spreads all over the mouth, which never happens, but when there is much of the sharp-sowre-humour in the body.

38. Secondly, The Thrush is dangerous which is *stubborn*, that is, which falls slowly, and straightway grows again; which is caused by a tartness in the sowre humour, making it stick more closely to the parts affected, and so fretting them the longer.

39. Thirdly, The Thrush is dangerous, which is *yellow* or *black*, and *dry* or *withered*, which happens by reason *Choler* is very faulty, and joyned to a sowre humour also faulty; and each humour being faulty together are not so easily corrected, as a sowre humour alone. Now the sign that these Humours are amending, is much moisture coming into the mouth, like one salivated, with

which the Thrush does not only depart more easily, but also the Tongue, Palat, and other parts of the mouth affected, are sooner healed and cured.

40. As dryness of Ulcers is always judged a bad and deadly sign, so it holds good in the Thrush: whose cause I judge to be the same, and that is Choler much faulty in the Body, which does not so much temper the sower humour, as make an effervescency with it hurtful to life.

41. For if a mans life do principally depend upon a mild effervescency of Choler and the sower juice both in the small Gut and Heart, (as we are daily confirmed by experience) then must Death be expected, when that effervescency is very wrong.

The Cure.

42. And now having explained the Nature, and given the Prognosticks of the Thrush, it remains, that we give also the Cure, which will consist,

43. First, In amending and correcting the Sower Humours and Va-
pours

pours, which will hinder its further spreading.

44. Secondly, If the body be full of humours, in purging them after they are corrected.

45. Thirdly, In ripening the Scabs, which will cause them to come off.

46. In cleansing and healing the parts freed of these Scabs.

47. And although many heed not the correcting of a sowre juice, because the knowledge of sharp humours was hitherto confused among Physicians, sharpness alone being known unto them; yet now having by large experience proved that there is a double and contrary sharpness, many have noted the daily harms of this different sharpness, and in the Cure have used different remedies.

48. Among those which correct either, yea each sharpness, we commend these in the Thrush, which destroy any sowre spirit, and that gently; to wit, Crabs eyes, Pearl, Coral, Chalk, Dragons blood, Blood-

stone, and many others, which according to the diversity of Humours faulty in the Thrush, may be chosen.

49. As when by reason of great drowth, the Tongue with other parts affected, is not only ulcerated, but also cloven, out of which comes clear blood, then Blood-stone, and Dragons blood are fittest to use.

50. Where the Thrush is without such drowth of Tongue, Crabs eyes and Pearl, as mildly destroying sowreness are esteemed best; Chalk also, does most potently destroy sowreness.

51. Here also may Volatile Salts be used, as which break any sowreness: also Mineral Bezoard is proper.

52. Which Humours being corrected, may be purged by such things as purge water, and seeing Choler and Phlegm are joined to them, select medicines are chosen for that purpose.

53. Hence

53. Hence it is, that in curing the Thrush we do so much use *Syrup of Succory with Rhubarb*, or some such like; because *Choler is corrupted also by the sharp-sowre-humour and cankered*: Not that I say, every humour is purged by any Medicine, for I think this or that humour may be purged by one Medicine better than by another.

54. As these humours are joined together in the body, so should a purge be artificially mixed, to empty the body of them.

55. As a *sowre humour is bred by using sowre Meats, Sauces, or Medicines, and by cold Air, a fright, or sorrow of mind*, so by avoiding these it may be prevented, and by using fat, or oily and *Spirituons* things, living in a clear and hot Air, by recreating the mind with delightful things.

56. *Chalk, Dragons blood, &c.* will also prevent the new breeding of a very sharp-sowre-humour.

57. *Fat and Oily things*, but especially *Opium*, and all things that *stupifie*, blunt the sharpness of a *sowre* humour; as also any *fixt sulphur* of *metals* or *minerals* which I have found to allay hurtful effervescencies better, that is, more mildly, surely, quickly and safely than any other Medicine.

58. The *aforesaid Medicines* will ripen the *Scabs*, and heal the parts affected, for which use I also commend the strained juice of *Turnips* boiled in water, or roasted; to which we put a little sugar when it is not sweet or pleasant to taste, which is scarce needed when they are roasted.

59. With this juice the sick may wash and gargle his Mouth and Throat often, or swallow it after it has been a while in his mouth; which I the rather advise, because the mouth alone does not enjoy this benefit, but the Gullet also and Stomach, which we noted before might have the Thrush, and still it is better for Infants, because their mouth can-

cannot be wafht and gargled.

60. Yea this juice will correct and blunt the fowre humour in the small Guts, and so hinder its ascent upward, and make this evil be the sooner subdued, and therefore I commend it before any other.

61. Many use several Syrups, of Violets, Jujubs, of Licoras, the so-
lutive Syrup of Roses, &c. which are beneficial in that they blunt the hurtful fowreness by the mucilaginous juice of the Plants, whereof they are made; whether it be by boiling, or only bruising and straining them.

62. Before many others I commend *the Yolk of an Egg*, beaten in Rose-water with a little Sugar to make it grateful. For the Yolk of an Egg draws into it self the hurtful fowre humour in the mouth, and so by degrees it frees the parts affected with the Thrush of the same, and hastens its Offal. Which should be used as the juice of Turnips, shaking it always first.

63. New

63. New Wort is also commended, which having had no Yest in contains the fat and mucilaginous parts of Barley.

64. Yea, many commend Bees with Figs cut in pieces and boiled in it; which I do not contemn, being helpful; yet have I observed to be soon loathed by the sick, for its great roughness caused by the Figs: So that they would seldom continue its use.

65. While the Thrush thus happens, that is, by little and little falls from the parts under it, and which are by it ill affected, a new skin then covers the same parts under it, which Scabs again, if a sharp soreness rise up to the mouth: but if be fully corrected, the skin continues and covers those parts of the mouth which were bare.

66. When they cease to appear anew, Physicians observe the cause of them is in great measure removed, because the Ulcers soon heal after it.

67. When

67. When they begin to heal,
other things may be added, which
it more potently: So instead of
Syrup of Roses, you may
Syrup of Red Roses, Honey of
Roses, &c. yea, Bole Armoniac,
terra Lemnia, and such like fat
things, rubb'd with Plantain water
beated fine, putting thereto Ho-
ney or Syrup of Roses in a small
quantity, and holding some of it
in the mouth, which will hasten
healing, the last part of the
cure.

CHAP.

C H A P. VI.

Of the Falling-Sickness, or Convulsion.

1. **W**E now come to the *Falling-Sickness*, by which many Infants are taken away hence and therefore the more worthy of enquiry.

2. *The Falling-Sickness* uses to follow *Gripes in the Bowels*, and a green and *sowre-smell'd purging*. Whence it is judged to be the chief Cause of all.

The Falling-Sickness described.

3. Now the *Falling-Sickness* is reciprocal, and (for some time) continued shaking of the Parts moved the *Muscles*, as the *Hands*, *Feet*, *Lips*, *Tongue*, *Eye-lids*, *Eyes*; in one word it is a shaking of all the parts which

stander-by can touch.

4. This shaking is *more vehement, more gentle, of longer or shorter continuance, upon every part of the body, only upon some: often, or seldom turning, and thus it varies.*

5. For it returns *by fits*; which while it continues, Children can scarce see any thing: I therefore, the more admired my own daughter, who being but eight months old, the last time she lived took the Falling-sickness, her teeth coming hardly forth, she took any thing that was given her in the fit, which continued some hours, (and the like I do not remember in either young or old) when the fit left her, she took nothing for several hours, and at last fell quietly.

6. As people of years seem to want outward sense in the Fit, so we may judge the same in Infants.

7. I said, that *in the Fit they seem to have no outward sense*, although they commonly stir at any strong smell applied to the Nostrils, and sometimes

at

at a loud noise, and especially at their own name, spoken in at their ear.

8. They are also observed often in the fit to be burnt to the very bone and yet not awoken: which signifies that they have no outward sense.

9. I know no other reason of the difference, than that the Cause of the disease may be changed by a sharp volatile Salt; unless perhaps one outward sense may then be more affected than another; for which if it be, I could never apprehend a reason.

10. The most that have these fits when they come to themselves, know not what they suffered, and scarce complain of any other thing, than a heavy head ach; unless perhaps during the Fit some part be bruised by vehement motion, which is felt after the fit.

11. For this is to be noted, that the most are more stupid after the fit and if the fits often return violent, they continue after them stupid, and sometimes foolish.

12. All which are evident signs
at the *Falling-Sickness* affects the
whole Brain; so that many say, if
the Brain be not chiefly affected
the *Falling-Sickness*, then is the
root of the Marrow of the Back, and
the Beginning of the Nerves.

13. For the outward Senses and
Animal Motion are manifestly affected;
and so are the Inward Senses, when
they become stupid; also the Head
of necessity be affected, because
of its heavy pain after the fit.

14. Seeing therefore that the most,
not all the functions of Life are af-
fected in and by the *Falling-Sickness*,
we must enquire what it is, and
what parts are ill affected?

15. So far as I could observe, I
judge, that the Animal or vital Spi-
rits are affected and changed in the
Falling-sickness, and not only, by moving
inordinately to the opposite Muscles,
but moreover, by being made unfit to
perform the office of the outward and
inward senses.

16. Al.

Of its
Cause.

16. Although I therefore think that the beginning of the Nerves inordinately moved, whence the Animal Spirits are moved in greater plenty and also inordinately to every part; judge, they are defiled and so change in their qualities, that then they are unfit to do their natural sensation and therefore, all the Muscles in true Convulsion continue afflicted long after the fit, as the same Spirits are infected with that faulty quality which I think are soonest freed of the harm, when the Spirit of Sal Armoni and such like Spirits pierce into the Brain*, through the Nostrils, and join themselves to the Animal Spirits ill affected, amending their fault, and the sooner, concluding the Fit.

* Being
held to the
Nose.

17. Whence I conclude, That the Cause hereof is contrary to Volatile Salts.

18. If any should examine Volatile Salts, and search for the contrary he shall find that Some Spirits likewise Volatile are contrary to them; and so may probably conclude, that Some

Sovre Vapours are the Cause that inordinately moves the beginning of the Nerves, and hurts the Animal Spirits.

19. Which is confirmed by those Diseases already mentioned that precede the *Falling-Sickness*, as *Gripes*, *Green Purgings* with a *Sovre* smell; as also an unexpected and grievous *Fright*. For in a *Fright* the *Sovre* humour in the body gets greater strength, and often disturbs all the Senses and Motion of Body, and so raises a *Convulsive Shaking*.

20. Beside which demonstration, if any without prejudice shall consider every thing remarkable in the *Fit*, he must acknowledge, that nothing else can cause it, but a *volatile Sovre Spirit or Vapour*.

21. For it must be such a thing as can suddenly rise up to the head from the furthest part of the Body, and there cause a disorderly and forced motion of the Spirits towards all the Muscles, which can darken and stop all the outward Senses, and make the

G party

party foolish, leaving an heaviness in the Head: But all these can be done by nothing but a volatile Sowre Spirit, or a Sowre and Sharp Vapour.

22. For seeing there are only two sorts of sharp Salts known, a Lee and Sowre, and from hence a mixed (and broken) Salt of both, namely Brine Salt, more enclining to either, as it partakes of either of those sharp Salts: and that Sickness is not bred, but cured by Lee Salts, especially if Volatile (although also fixed may serve, Coral, Pearl, Crabs eyes, and such like, found out by long experience) it remains, that we derive this Sickness from Sowre Spirits, which being Volatile, do readily turn into Vapours.

23. Which cannot be expected from a Brine Salt, as not raising such sharp Vapours.

24. Nevertheless we know not all things belonging to this disease, not how our Spirits can be so depraved and affected by those sowre and sharp vapours as almost to destroy the outward senses,
and

and especially make the party foolish.

25. But although we know not all, yet shall we more distinctly propose what concerns this disease, and make a notable progress into the knowledge of its obscurities.

26. *This one thing I have attained; about that stupidity of the outward sense, which happens by the Falling-Sickness, that the Effervescency in the small Gut with Choler, is made so faulty by a sovre Spirit too sharp in the juice of the Sweet-bread, that sharp and sovre vapours, having got a stupifying quality from Choler, are raised and go through the Milky veins to the Blood, and with it to the Brain; where they do in some measure provoke and hurt, as it were biting, the root of the Marrow of the Back bone, whence the Spirits are carried more plenteously to the Muscles, and do there by their inordinate motion first produce Convulsive Motions, and at length (by a Motion continued on each side the Nerves) a Convulsion: and partly stupifie the Spirits, whence is that*

Note:

great stupidity, and insensibleness during the fit.

27. But whether their Foolishness which happens after the Falling-sickness, be caused by that stupifying quality, I dare neither affirm nor deny: seeing we observe that Drunkards being as it were stupified, seem foolish in their drunkenness; yea, if any take Opium, while its vigour lasteth, if they be raised from sleep, they look like fools, and have gesture and talk foolish enough.

28. If then the foolishness of those who have this sickness be without doubt caused from a stupifying quality in Choler, the Spirits of our Body must needs be harmed by it, or all the Brain, which yet serves to prepare our Spirits, which being continually after-bred, may keep in them a fit disposition to cause foolishness. But who will explain the Manner of it? I confess I cannot.

29. Thus the Cause of the Falling-sickness is a sharp Humour (provoking the beginning of the Nerves) most commonly the juice of the Sweetbread,

bread, or any *sovre* thing taken in making a bad *Effervescency* with *Choler* in the *small Gut*, by which *sharp* and *sovre vapours* arise, and go up to the whole *Brain*, there provoking the *Nerves*.

30. It now remains that we *subjoyn* the *Prognosticks* and *Cure* of this *disease*.

31. And from what has been said The Prog-
nosticks. the *Prognosticks* are easie, namely, that it a *most grievous disease*; seeing first, *many* die of it; secondly, seeing it leaves such *lamentable symptoms* after it.

32. I cannot pass over, that in mine *eleemosynary Practice* there was an *Infant* of about two years old brought to my door, who about a month before had the *Kink-Cough*, which brought upon it the *Falling-sickness*; and after it the *Infant* that *walked* and *spake* before, became *dumb*, and as it were *Palsical*, not being able to walk.

33. I fear also, if it be not speedily cured, it will become *foolish*.

To prevent which I prescribed both inward and outward Medicines.

34. For that *choaking Cough* in the *Infant*, seemed to proceed from *some vapours bred in the small Gut*, and by degrees rising up to the *Lungs*, and there provoking them to cough.

35. The same *some vapours* carried to the *Brain* seem there by their sharpness to provoke the very beginning of the *Nerves* to drive the *Animal Spirits* more plenteously every way, and especially to all or most of the *Muscles*, whence first arise *Convulsive motions*, and at last a *Convulsion*, that is, the *Falling-sickness*.

36. Now if these *some vapours* be carried further to the *Marrow* of the *Back*, and are there more grown together, it causes an *Impotency to Motion*, the *Nerves* being pressed together or otherwise ill affected, through which the *Animal Spirits* are carried to the *Muscles*.

37. Moreover, by the same cause the *Muscles* that help speech being ill affected, the same *Infant* became
dumb,

dumb, though before it began to speak well.

38. Because it is safer to prevent The Cure. than be prevented; it were to be wished that the cause thereof be met with, both *in the child not born, and after birth.*

39. We have already told you, that *the most frequent cause of the Falling-sickness in Infants is to be found in the Mother while with Child, using ill diet, that is, such as will encrease a fowre humour in the body; such as Sallets, Citrons, Oranges, unripe and fowre fruits, and other Meats which for their loathsomness are pickled with much fowre and sharp liquors; also fowre wines and Beer, Butter-milk, or otherwise curded and fowre often used; Cold Air, Sorrow, Fear, &c.* Although it be a Proverb among them, Salt and fowre hurt nature.

40. Now faulty Diet doth *more hurt the Child than its Mother*; whether it suck, or be unborn.

41. Therefore *to prevent this evil*, it were to be wished, that *Mothers* who have such tender affections towards

wards their children, would *beware of using the aforesaid sowre things*, as frequently causing the Falling-sickness in Infants.

42. Among which we reckon also sweet Cows milk a little after calving, as which soon corrupts and sowres: We judge the same of giving *much Sugar* in milk or pap to the Infants as being hurtful, which as it easily sowres, so it moves the juice of the Sweet Bread, being more sowre and sharp, to raise a bad Effervescency with Choler.

43. Because Custom is hard to alter, and many think that meat relisheth not which is not *very salt* or *very sowre*, by both of which *Nature is weakened*, Mothers before they conceive, should disuse themselves from *very sowre Meats*, and by degrees accustom to more healthy.

44. That this is wholesome counsel doth appear from hence, that *Infants born of Mothers not using sowre things*, seldom get the *Falling-sickness*; and on the contrary.

45. But

45. But where Mothers are incorrigible, let them use *Oily Volatile Salts*, which *temper, correct* and *diminish* a *sourre humour* before any thing, by the daily use of which, I have observed that Women with Child have been very healthy, and afterwards their children, and not liable to the Falling-sickness.

46. Women with Child may follow this direction, and *continue* it *while they give suck*: Nurses also may observe the same; *giving* diligent heed, as much as may be, that *they do* not often put their hands into cold water; seeing Infants are often grieved thereby; (especially, if they suck a little after;) and get the Falling sickness.

Note.

47. As these things may be given to Mothers and Nurses, so if the Mothers diet be faulty, the Infants should take soon after their birth those Medicines which temper and concentre a sourre humour, and such are not only *volatile Salts* which may safely be given to Infants in a small quantity,

tity, in Mint and Fennel *Waters* and *Syrups*, but also *Coral*, *Pearl*, *Crab eyes*, and such like, known and frequently used in practice, although the reason of their vertue be known to few.

28. If the Infant be too costive, must be purged gently, by giving one or two grains of *Diagridium*; which safely purges *Waterish Humours* as well as *Choler*, although few know it. Or the loosening Syrup of *Rose* or the Syrup of *Rhubarb*, simple, or with *Succory*.

46. If this opening the Childs bowels be neglected, you may commonly observe that they are griped, and a while after a *Green Purging*, and the *Falling-sickness* follows.

50. These purging and altering Medicines will timely prevent this horrid, destructive and deadly disease.

51. Which ought the more carefully to be given, when there is no only danger of the *Falling-sickness* by the Mothers bad diet * while

* Or want
of Sto-
mach.

as with child, but chiefly when
 ere are manifest signs of that sovre
 humour doing harm in the small Gut by
 ripes, and especially a costive body, and
 een Stools, which forerun the Falling-
 ness.

52. I say they must be given oft in * Not Ma-
 day; such as *Powders* * of Pearl, Red gisteries,
 oral, Crabseyes, Chalk, Mineral for they
 d Animal Bezoard, Harts horn, Ivo- are like a
 the Bone of a Deers heart, Elks Chip in
 awes, and such like, abounding Pottage.
 th volatile Salt.

53. Also *mild volatile Salts* may
 added to Aromatical Mixtures *, *Of which
 d be often used in a day. see Chap.
 2.

54. Moreover, *Clysters* of * Cows * which
 lk, Venice Turpentine, the Yolk is set
 an Egg and such like, may be gi- down in
 n, which will soften the excre- the first
 ents, the Milk will devour the Book, ch.
 wre humour, wind and vapours 12. §. 51.
 ill be vented, or choaked and of the Au-
 owned, and the hurtful humours thor.
 awn down by stool; and so hin-
 ed from ascending.

55. The humours may be purged as directed in §. 48. when they are corrected, which cannot be without using Medicines a pretty while.

56. While these things are given to the Child, care must be taken, that the Mother or Nurse use soure Meats or Sauces, lest she be affrighted or grieved; or endure cold Air, or wash her hands into cold Water, or get cold in her feet; by any of which, the noted evils are often bred.

57. Now if by this method the Fits be removed, they must still use the same medicines, and continue using them for some time, especially such things as break and temper a soure humour, after which it must be gently purged*, and that seldom, except the child be costive, which is very dangerous: Let Nurses and others say what they please to this, and keep that fancy, that Physicians never or very seldom, unless in desperate cases to be sent for.

* So Hippocrates teacheth that the humour should first be made fluid, and then purged. Aph. 70. §. 7.

58. If Vapours be observed by a light Fit to stupifie the senses, and

the Head, the aforesaid Medicines to be used often; thereby to prevent the *Falling-sickness*; in which that Clyster will help, by drawing out those humours.

59. When the body is enough so-
le, sleep refresheth, the mind
cheerful, its excrements yellow, its
appetite to meat moderate, its face
all colour'd, its flesh firm; in a
word, when every thing doth its
office right, its stools are answerable
to its food, and come away with
ease, and the outward qualities of
the body testifie vigour; then are In-
fants to be accounted healthy.

When a
child may
be called
healthy.

60. All which are promoted by
volatile Salts daily used in a small
quantity. At which if any carp,
let them bring better, and not idle
their time in refuting others, for
that advantageth it to say, that
such a one wrote falsities? which
was my inducement to write my
own observations (not meddling with
others) and shew how they are agree-
able to experience.

61. As

61. As for *that stupifying quality* causing a *stupidness* of all the outward and inward Senses; and proceeding from *Choler*; I judge it may be corrected by *volatile* (but somewhat sharp) Salts, and *fixed earthy* Salts, Coral, Chalk, Pearl, Crabs eye, Diaphoretick Antimony, &c.

62. For as these latter drink up the *oily part of Choler* in the *small Gut*, the former *volatile Salts* do disperse with power those hurtful vapours which are or might ascend to the Head, and purify their Spirits from that harm.

63. If *Foolishness* beginning may be cured*, I judge those *volatile Salts* will do it, but somewhat sharper: for I have often observed, that people of years as well as Infants using them a pretty while have all their Senses more vigorous, so that their Mind works in them more freely and subtilly than before.

* Which if ever, may be expected about the 13th year of their age, which Hippocrates seems to hint in Aph. 45. §. 2. and Aph. 28. §. 3. and most plainly in Aph. 7. §. 5.

C H A P. VII.

Of Childrens getting Teeth.

THe difficult getting of Teeth deserves not the last place among those Diseases that frequently and grievously afflict Infants, seeing that they often endure *an exceeding pain in the Gums, and a troublesome heat in the mouth, and also an inflammation of the Gums, yea the Falg-sickness, and sometimes death* hereby.

2. Teeth commonly appear in Infants after the *sixth month*, in some sooner, that is, *in the third or fourth month, in many later*, after they are eight or nine months old, yea, sometimes only after a year.

3. Some get them *without much trouble;*

trouble; many with trouble, especial if many teeth come together, or Eye-teeth.

4. Commonly the fore teeth come first, both upper and under, whether they come together, or apart; then the outer teeth; eight in all.

5. The Cause of difficult toothings
The Cause. is sometimes in the Teeth, when they grow slowly, and are blunt, and so cut the Gums more difficultly.

6. Sometimes in the Gums, when their substance is more solid and hard, not being easily cut by the Teeth.

7. Which difficult cutting comes slowly, causeth pain in them, being sensible parts, and because of the substance of the Gums is worn and as it were bruised, Blood runs out of their vessels, and is stopped in their substance, whence comes an Inflammation there, with great pain and heat, accompanied with swelling, whence arises a continual Fever, different according to the various corruption of Humours in the body, often raising sower vapours, which comes

coming to the beginning of the Nerves, and provoking them bring the Falling-sickness.

8. To prevent all these evils, and The Cure: if they be present, to cure them; we must endeavour, if the teeth come slowly, or the Gums be hot and pained, to soften and mitigate them, and so promote their cutting the Gums.

9. To soften the Gums we commend unsalted Butter, alone or with Honey; if with ones finger they be often smeared therewith; as also with Creams.

10. To this end we commend Hares Brains used the same way.

11. Yea some commend the blood that drops from a Cocks Comb cut off, and rubbed likewise on the Gum.

12. It is usual to make an Instrument of Ivory, Crystal, Silver*; or * Also of Coral. any other solid and hard thing, and put it between the Gums, whereby the Teeth cut through them the easier, being pressed by Infants biting.

13. To this end many commend Wolfs Teeth, as better than other

H

hard

hard things ; which if so, we may ascribe it to the volatile Salt in them.

14. And indeed *the Teeth* of some *fierce wild Beasts*, as they are *very hard*, so they send forth a *volatile salt fume*, very piercing, upon which accounts they help to cut the Gums.

15. As those *Teeth*, and other things now mentioned, may be held *in the mouth*, to be bitten ; so should they be *moved all along the Gums*, which is pleasant to Infants, and helps to let out the Teeth.

16. The foregoing Treatise will afford the Cure of what sickness usually attends Infants toething.

C H A P. VIII.

Of the Scurf and Scab.

1. **W**E come now to the *Worms* and *Scab*, often troublesome diseases to Infants.

2. The *Scab* goes over *all parts of the body*, most commonly the Face and Breast, seldom the arms or other parts, as though the Skin were eaten with small Worms, from which a rough Humour like Dew comes forth, making scabs of sundry colours.

3. The *Scurf* troubles the *Head*, especially *where Hair grows*, so that the hair oft falls off, and slowly or never grows again, leaving watfy prints in the head without hair.

4. Seeing the Causes and Cure of these two differ not much, we intend to discourse of them together.

5. In this Scab *little blisters* are wont first to break out, *in any part of the Skin*, but especially the face, ears, or arms, sometimes almost over the whole body; with a great itching by reason of which Infants, if they can, do scratch the parts affected, and if they cannot, they rub their face at any thing they meet with, nor do they leave off, although after rubbing the parts be red, and the outer skin opened, and both a sharp and biting Liquor, and also Blood runs out by all which the evil is not lessened but rather encreased, by spreading more, and breeding new trouble elsewhere.

6. The *humour* proceeding by this rubbing is either watery, or yellow, or of a darker colour.

The Cause.

7. The same *humour* is sharp, and if tasted, found Sowre, and inclining to a brinish Saltness.

8. The same *humour* is tough and clammy.

clammy, sticking to the parts, and growing in a lump, and breeding a Scab, which, if the part be not bare, as is the face, it cleaves to their shirts, so as not to be removed, unless the cloaths be warily moistened before, whereby the Scab may be left on the part, which must be done, if the Scab be soon cured.

9. Beside the Itching a great heat is felt in the part affected, manifest to feeling: which I judge is stirred up by a bad effervescency there, which is hot.

10. And he who knows, that there are only two sorts of sharp Salts of contrary natures, a Lee and sowre salt; and as they meet, more or less pure do make an effervescency or disposition, often accompanied with heat, seldom with cold; may easily conjecture, that one or both of these salts are amiss in the Infants body in this disease: which being driven by the blood to the outside of the Body, it rages there, and breeds this troublesome distemper.

11. *From the aforesaid Symptoms of this Scab we may conclude, that it is caused by a sharp and also tough humour; but sowre.*

12. *And why sowre? Because any sowre thing soon joyns it self to a tough and phlegmatick humour, and is carried with it all about the body; to which if a Lee Salt be joined, it readily turns into wind, or at least doth more blunt than Salt.*

13. *Upon this principle confirmed by my practical and chymical observations, I thought, that Lee Salts mild and fixed, such as is in unslaked Lime, or any kind of volatile Salts were helpful both by reason of its sowre sharpness, and tough Phlegm nor did my hope deceive me, for I have cured many by both these Salts.*

14. *These sowre and sharp humours stick in the outside of the body, sometimes because of the toughness of Phlegm mixed with them, sometime by some fault in diet; as cold got drinking Sweat, which stopping the pores*

pores hinders the outlet of those humours; and so makes an imperfect Crisis, as being separated from the blood, but stopt in the pores of the Skin, which may be got also by cold shirts.

15. These humours sticking in the outside of the body grow worse, and corrupt the Blood that comes near, and cause an itching and pain in the parts near them, which being opened by violent rubbing the bad humour comes out, and gets sharpness by the air, like a load stone attracting parts like it self in the air unto it.

16. Note also, that *this sharp humour coming through the skin, infects and likewise affects the parts near it, to which (by reason of its toughness) it cleaves, and creeps further: Upon this account also it becomes contagious*, whilest that humour touches others, especially *Infants*, whose tough humours are sooner infected than theirs that are of age, and longer in curing, as if the Infants face

be touched by any thing of his who is infected.

17. Such evils *seldom* arise in the outside of the body by *humours diversly sharp and abounding in the blood continually sent to the outside of the skin:* but for the most part by the same, though but in small quantity, carried thither by sweat, and staying there corrupt worse, and corrupt the Blood that comes to those parts, and so continue the distemper longer.

18. Which is evident, because that Scab is contagious, and infects others by its touch, some of the sharp and more or less tough humour cleaving to the others skin, through which it goes, and corrupts the blood that moves to that place, and sticking in the skin, often makes a long continued distemper.

The Cure.

19. This is confirmed by the Cure often performed by outward, and without inward medicines, unless there be also observed other faults in the humours, because of which inward Medicines are needed, and not because of this Scab, unless perhaps it be bred by

sweat any way stopt; in which case will be good, again to open the way for the humours sticking in the outside by such sweating.

20. But take heed, lest you use such medicines as any way stop the pores of the skin, and drive in the bad humour, whence many inconveniences arise, as Fevers, and sometimes the murthering-sickness, and death.

21. Wherefore in a rational Cure of this disease, such things must be used, as keep the pores of the skin open, and open them; and such as temper a sore, and cut and cleanse the rough humour, and so restore the part affected, and help to heal.

22. All which is done by Volatile salts, and by them alone, by the help of which I have cured many fortunately, soon enough, and with ease.

23. Mean while pull not off the scabs, for that hinders the Cure.

24. I mention not many approved Medicines for these diseases, being they are to be had in other Authors;

Many use flowers of Sulphur inwardly and outwardly, which our Author commended, as which destroys the humour of the Scab.

* As the
Leprosie,
&c.

Authors ; I use only these which do
the Cure with speed, safety and
ease, and have liberally laid o-
pen the noble way of curing ma-
ny * other evils, and different Scabs
on the outside of the body, which
was never done by any. God
grant, that, as I have given it
with a good mind, so it may be
for the good of the afflicted.

CHAP. IX.

Of the Small Pox and Measles.

1. **T**He Measles and Small Pox happen to *all ages*, and especially to *Infancy* and *Childhood*, they are commonly explained together, perhaps, because *they first appear after the same manner*, and sometimes follow one another; many have them twice or thrice, and sometimes in one year.

2. The Small Pox and Measles are thought *unavoidable*, although I have known many live to old age, and die without them.

3. And because *the most of Men are liable to them*, it is commonly thought, that those *pustules arise from the menstruous blood corrupted about the Womb*,
while

while it is therein, some part of it having got into the Child, and sooner, or later separated from the blood is driven to the outer part of the body.

4. As I know no urgent reason against it, so neither can I bring any for it.

5. This I know, that few escape the Small Pox, but at certain times and years they are Epidemical, and sometimes afflict worse than at other times.

6. And this also, that a Fever more or less accompanies them.

7. Moreover, the Small Pox and Measles appear after the same manner with small red spots or swellings, so that the best Physicians may be deceived at first in their judgement; wherefore I use to suspend mine till the third day.

8. Yet most commonly about the 3 day the noted swellings are wont to fade in the Measles, which are more raised and extended in the Small Pox, a pit often appearing in the middle of them: which many account a bad sign, although I have

have often observed the contrary.

9. Yet I account it a bad sign that those pits should be upon white Pox raised high, it is good that they wither by degrees, but not that they fall, and grow hollow.

10. As soon as the Spots or Swellings appear, the Fever that goes before them is eased.

11. Yet in the Small Pox they are more raised and extended, which swellings breed an hot pain; and after a while are more tolerable: till beginning to ripen they cause fresh pain, which goes away again, matter appearing in them, and drying, whether of themselves or by art; and so they fall, prints deeper or more superficial, remaining in the skin according as the humour has more or less sharpness, and in young ones they often go quite away.

12. Yet sometimes by reason of the sharpness of humours and a great itching, many being torn, run into one, and afterwards leave unhandsome scars, not a little deforming the face.

110 *Of the Small Pox and Measles.*

Of the
Cause of
the Small
Pox.

13. It is then worth enquiry to know the true Cause especially of the Small Pox, and its Cure, which leaves after it the fewest marks.

14. First then consider, what is the true cause, that sends forth those Spots? Secondly, Why in the Small Pox rather than in the Measles and other Spotted Fevers those spots have a swelling, (which is sometimes also in the Measles,) but those swellings do by degrees ripen under the skin; and do more or less fret or eat the skin under them, whence pits and other scars and unhandsome spots often continue after the Cure.

15. And first, because these spots break forth with a continual Fever, more or less burning, sometimes more or less dangerous (being either red or wan, purple or black, greater or lesser) I judge, something during that Fever mixed with the Blood, is carried to the outer parts of the body, to be sent out, which yet tarries under the skin, and makes it of several colours, and ill affects the skin, and parts under it.

16. So

16. So that *that appearance of Spots* is Critical, but *imperfect*, a very subtile humour sticking under the skin, not driven forth when the Fever abates.

17. As pain is more or less with those Spots, so the humour is more or less sharp.

18. If *that humour be sharp*, it may the easier stick to the skin, especially, when the body sweating is laid aside, or the sweat not coming forth easily is not helped; which may be by the fault of the Patient, of By-standers, or Physicians.

19. Of the Patient, when he is impatient to bear sufficient cloaths, or take a convenient sweat.

20. Of Standers-by; when they wait not on the sick who perhaps may be raving, and in a sweat lay their bodies naked, not knowing; or if they cover them not enough, or according to their wit, dissuade the sick from using Medicines, whom they are readier to observe than the Physicians.

21. Of

21. Of *Physicians*, when they are little skilled in the art, though never so well versed in the reading of *Authors*, and neglect to prescribe *sweating Medicines*, that are only to be used when the Patient sweats little, and is not eased thereby, in which case sweat should be renewed, as well by *Cloaths or a Bath*, as by *inward Medicines*.

22. When the *Spots* are not attended with *Pain*, and so have no itch or heat, and if the *Fever* abate they will soon fade.

23. But when there is much sharpness, which appears by an itch, and small heat, they also will soon fade as is usual in the Measels.

24. But when there is much sharpness, which is known by a trouble, some itch, great heat and pain, then there is danger, lest some corruption breed within the skin, or in the parts under it.

25. If the sharpness be of the nature of a *Lee Salt* it mortifies, as happens in a *Gangrene* and *Cankred Spots*.

frequent in the Plague, and is black or wan.

26. If the sharpness be of a sower nature the Part is likewise corrupted, but not so mortified, nor black, but rather white, being first red, like Blood turning into Matter, as is common in the Small Pox.

27. If the sharpness partake both of a Lee-Salt and Sowerness mixed, and much of them, then the swellings are red, and burning, but have a white and sometimes wan pimple in the midst, discharging a filthy and wan matter, corrupting the parts after a mixed manner, as happens, in a Carbuncle.

28. Yet because in the Small Pox, of which now, the Blood turns by degrees into matter, which is different according to the difference of the Blood and Humour, more or less impure, we judge it proceeds from a Sower Sharpness.

29. When the Sower humour in the Pimples is blunted, and as it were conquered, whether by the cor-
I rupted

rupted Blood alone, or by Medicines inward or outward, the Matter dries up.



30. The greatest difficulty now lies in determining the rise of that sharp humour causing the Small Pox, seeing many think it arises from the Mothers Blood (while she bears the Child) staying about the Womb, and as it were corrupted, and conveyed into the Child, where it lies, till it be sooner or later brought out, and so after a Fever breed these Pox.

31. That blood for the first three months does thus stay in the Womb is clear, from Abortion often thereby caused.

32. And that Blood staid there, is changed and corrupted 'tis not improbable.

33. Nor is it absurd to say that this blood thus corrupted may be mixed with that Blood which goes into the Child.

34. Many conjecture, but do not prove that that Blood mixed with the other, keeping its infection may be carried

ried about the body for many years without any harm, for the blood cannot be mixed with it, and get no harm: which assertion I encline to believe, though I can neither prove nor disprove it.

35. This I think however, if such a thing be, the corruption of the Mothers blood in the Child is not such as would render it unfit to nourish the body, and do its other offices; but such, as can lie long in the body and do it no harm, until it be stirred up, and put upon its work, accompanied by a continual Fever.

36. That which stirs it up is the air most commonly, peculiarly ill affected; Whence the Small Pox are so often Epidemical, even in all seasons of the year.

37. The Small Pox may also be stirred up by peculiar Food, which many Infants using in the same house fall sick upon, although elsewhere they come not; unless any had rather think, that then this danger is in the Air or Chamber of any house.

38. *A Fright* also often causes the *Small Pox*, as it does the *Plague*, and other dangerous diseases.

39. Yet still we have as great a puzzle to extricate from, in determining the place or part where this corrupted Blood can lie hid.

40. Which I take to be in the *Glandules of the Kidneys*, not knowing the true use of them.

41. Although I conclude that *Sowre Humour* causes the *Small Pox*, and have already given my reasons for it, yet I am not satisfied, *what the faultiness of that Sowreness is*; it will then be the more difficult to determine the place where it is kept.

42. If that *Sowre Humour* were very sharp, it could not be hid in the *Blood*, but would more and more corrupt it; but it is brought to rest and made dull so, as with facility to gain its former sharpness, and then to corrupt the *Blood*.

43. My reason is, because the blood is not corrupted, when that *sowre humour* begins to work, while the

the former Fever continues, when it is sent to the outside of the Body, and the Swellings appear; but then, it hath stuck some days in the Swellings, when they encrease gradually, when Heat, Redness and Pain are in those Swellings.

44. For then, that Sowre Humour being loosed of its Fetters, corrupts the nourishing Blood which comes towards the surface of the skin, raises a bad effervescency with it in every Pox, which inclines to an Inflammation, and imparts its harm to all the Blood, which being transmitted to the Heart, causes a Fever till by degrees, partly by the Blood, corrupted in every Swelling or Pox, partly by outward and inward Medicines, prudently and diligently used, that Sowre Humour is made weaker and subdued, and the Pox full of matter fall off.

45. So then this Sowre but dull Humour causing the Small Pox, gets its Sharpness, when being sent every way, it sticks in the surface

or outside of the Body, and by sticking there is made sharper, and corrupts the nourishing Blood that comes near it, and breeds many Inflammations, and after them Ulcers; which being either opened, matter runs out, or by little and little dried, the Scabs fall off, both the spots remaining, and sometimes their hollow places more or less deep.

46. If the Small Pox come forth in or about the Spring, the spots disappear in the same Summer; But if they be in Autumn, they continue all that winter, and fade the next Summer.

47. Also lesser Pits commonly fill in young people, but blemish the faces of years, especially if they be deep, and have made scars.

48. The Small Pox are sometimes dangerous, so that not only many die of them, but lose sight or hearing, and motion of many parts, sometimes casting them into a Consumption, or troublesome Cough and Leanness.

49. The

49. The more need then to be exact in their Cure. Of their Cure.

50. If they be Epidemical, and have dangerous Symptoms, remove Infants or others of tender years, who have not had them, into a wholesome air, where the Small Pox are not come, and continue them there till they be gone, or become not so dangerous.

51. If on the contrary, the Small Pox be gentle, and few, ripen soon, fall, not much deforming the face, then I think it prudent that Infants in health should live in the same chamber with the sick, and have them when they are most gentle.

52. Moreover if any bad humours be in them, either as to quality or quantity, they must be altered, corrected, or carried forth, and if the Pox come afterward, they will the less affect them, and be sooner cured.

53. At such times as soon as Infants have any Fever, or pain in the Head, Cough, Loathing, or Purging, or any thing else wrong, whether others have the Pox in the same house, or

if they be observed Epidemical elsewhere, the prudent Physician should carefully observe, *what humours especially are faulty, and what way they incline, whether to Vomiting, or Stool, or Sweating, and accordingly prescribe things convenient.*

54. If *Blood abound* in any, who may bear Blood-letting, they should do it speedily, and take a convenient quantity.

55. If the disaffection of the Patient, and especially the Fever permit, a *Vomit or Purge or Sweat* may be given *not only the same day, but an hour after bleeding*, according as Loathing, or a desire to go to Stool, or a disturbance in the Belly, or Moisture, shall perswade what should be done, whereby part of the bad humour, which might come to the surface of the Body, and breed the Small Pox, is wholly sent out of the body; and so they of necessity must be fewer, and more gentle.

56. I commend *Medicines made of Antimony* before any other in this disease

disease, both because *they have great efficacy and vertue of purifying the Blood from any humour, and because they are more universal than others, and expel the humours by more ways than others.*

57. Nor is it enough to give them once, but sometimes *they should be given many days together, till both the Fever, and other Symptoms be removed, or at least lessened: whereby the Pox use to be few, and gentle; yea, my Patients have seen them in their Stools, and felt great ease thereupon.*

58. When the former Fever declines, and they appear more or less, and the Symptoms that accompany their breaking forth are almost removed, then it is good to use *Dia-phoretick Antimony, Mineral Bezoard, or any Medicine of Antimony that sweats, by which whatever is mixed with the Blood, will be sent forth through the pores of the Body.*

59. By

59. By these also the Ripening, Drying and Falling of the Small Pox will be helped on.

60. These are the best Medicines that can be used inwardly, next to which are Sealed Earths, Bole Armoniack, Earth of Lemnia, Oriental and Occidental Bezoar Stone, any Unicorn's horn, Ivory, Harts horn, and especially any Volatile Salt.

61. Among outward things we commend those which temper heat in the Small Pox (inclining to ripen) and the sharpness of the humours that breed them; such as are in daily use, pretty fat Mutton-broths, Swines Lard, whether new or old, by which the Small Pox in the face, and hands may be anointed or covered, often doing it afresh. Also as the Swellings break forth, I would have volatile Salts mixed with Spirit of Wine and Camphire, and simple waters be applied by a Linnen Cloath, in time to overcome the fowre humour, and prevent any notable harm.

62. Some

62. Some boil Figs in water or beer, which although I blame not because it does good yet I commend not, because it sticks too much to the parts, and makes a stiff scab, which is troublesome.

63. Some also to keep many Pox from the face, and draw them to the feet, put the Infants feet in warm Cows milk, at their first appearance, which has success, but harm the Feet, filling them with Pox, which cause great pain, and daily weaken the feet, yet they do for beauty sake.

64. If what we have said have been neglected, or they have got cold when they should sweat, and any of the humour remain in the Blood, it may be sent back to it, and so there be danger that it breed an Inflammation, or Ulcer; above all the sick should use Antimonial Medicines often and long; in which case also Balsam of Sulphur is good, made with oil of Mustard-seeds, or oil of Amber or Juniper, if not too unpleasant; which oils were better if made into Balsam with the flowers of Antimony.

65. If

* Which
is in En-
glish.

65. If there be Ulcers before these Medicines be used, they will soon cure them. In which case I also refer you to the fortieth Chapter of my first book *.

66. If the Symptoms accompanying the Small Pox be various, the Cure must be peculiar accordingly.

67. The *Eye-lids* endure much pain and trouble, sometimes by the Pox blinding them, and by crying which swells them, and opens many Pox before they be ripe, the sharp humour coming out and fretting the eye, hurts the sight.

68. In such cases Women use only *their own Milk*, or put a little *Saffron* to it; which others dissolve only in *Rose-water*, and lay cloaths wet therewith to the eyes, and not badly done.

69. Yet *the juice of Chervil* bruised is better, putting thereto *Fenel* or *Rose-water*, laid warm by wet cloaths upon the eyes, often changing them, by which help many fore-

cited

cited evils may be removed.

70. The evil is worse, when part of the *humour* that breeds the Small Pox gets within the hollow of the Eyes, by which all the humours of the eye are confused, and so Sight is lost.

71. The evil is yet worse, when the hurtful humour is got into the Muscles of the Eyes, and breeds a dangerous *Inflammation*, not only taking away sight, but sometimes casting out the Eye.

72. Although a compleat Cure can seldom be in this case, yet we must endeavour, that none of those things be neglected, which may as well preserve the sight as the eye, using outwardly *Pultisses* that finely allay an *Inflammation*, and disperse the humour there, as much as may be: of which consult Surgeons writings: Apples a little sowre are good in the Poultris.

73. If there be an *Inflammation* in the Ears, what we speak of elsewhere, may also here be used: the soft of warm white bread, having a little Spi-

Spirit of Wine and Spirit of Sal Ammoniac mixed with it, and laid he into and upon the ear: a *Decoction of Wormwood, of Centaury the lesser Southernwood,* or of any other Aromaticall plants poured warm into the ear; any *Balsam of Sulphur,* a few drops at a time.

74. If a *difficult breathing,* or Cough trouble the sick with the Small Pox, *Antimonial Medicines* are best, and especially such as sweat also *Volatile Salts.*

75. If there be other Symptoms Physicians need not be at a loss for Medicines, if they understand Anatomy, and the structure of mans body, the nature and vertue of the humours, and especially be well stored with good and truly made Medicines.

76. Those things which *disperse the Spots,* and take away *unseemly scars,* must be sought in the Ornamental part of Physick.

C H A P. X.

Of Worms.

Worms are deservedly reckoned among those Diseases which frequently afflict Infants and Children, seldom, though sometimes, troubling people of years.

2. I will not here recite all the sorts of Worms, but *long and smooth Worms*, which afflict us all our Childhood.

3. They are altogether against Nature, seeing they ought not to be in us, and do us harm; biting, boring and consuming the body, and often causing Fevers, the Falling-sickness, and sometimes Death.

4. They

4. They are most commonly in the Small Gut, and often come into the Stomach, Gullet and Mouth and are often that way vomited; they also go downward to the thick or (lower) Guts, and come out at the Fundament, often by Stool.

5. They are sometimes in the Kidneys (commonly in Dogs) and there waste their substance.

6. They are commonly bred by too much meat, especially *Flesh*, and *green Fruit*: which not fermenting enough, turn into crudities in the small Gut, and by degrees corrupt and breed Worms.

7. In which corruption of Crudities *Meat* sharp vapours are bred, which flying up and down prick the Gullet, then the Stomach, and coming up to the Gullet prick the Nostrils also (which makes them rub the Nostrils often, and gripe the Stomach, causing suspicion of Worms,) now these vapours go through the Milk veins to the Heart, they breed a Fever, and going to the roots of the Brain

Brain, and working upon them bring the *Falling-Sickness* and Convulsion, and after them *Death*.

8. For the *sharpness of Putrid Humours and Vapours* extinguisheth the lively *Effervescency*, as Anatomical experience confirms; for squirt any sharp Liquor in at a Vein as soon as it comes to the heart, the *Creature dies*.

9. Seeing then that Worms cause such evils, we must endeavour to prevent their breeding by a convenient and moderate diet; and where bad diet has been, contrary should be given; and such medicines as correct those crudities, and if they be much*, then purge them; if there be Worms already bred, they must be killed, and sent forth.

10. Seeing Children are commonly great eaters, especially of flesh; they should by little and little be accustomed to less food, and that taken in season, and eat much Bread with the Flesh, which will sooner fill them, and so less endanger Worms.

K

11. They

* Which is to be known by the bodies great disorder.

11. They must forbear often using much sweet Milk, and Cheese, and Green Fruits, especially Plumbs, which are noted to breed Worms.

12. Seeing much eating makes *Crude Humours*, especially *Phlegmatick*; *bitter aromatical* things are best, which *correct* and *amend Phlegm*, and help *fermentation*, and turn meat into *good nourishment*, and so prevent many evils.

13. To this end *Vo'atile Salts* are good, as *promoting Fermentation*, and *correcting Phlegm*, and *dispersing Wind*, its *common* companion, and which *swell the belly*, taking them as directed before.

14. *Stubborn* and *tough Phlegm*, and therefore the worse to be amended may be *purged out* by *Senna*, *Agarick*, but especially *dulcified Mercury*, contrary as well to Worms as to that which breeds them.

15. The fore-cited *bitter things* kill *Worms*, especially *worm-seed* about ten grains taken at a time or more, according to the child's age, being
pow-

powdered and mixt with Sugar, or infused in a bag in Mead, one or two of it being daily taken.

16. *Dulcified Mercury* best of all expels *Worms*, a few grains of it being taken in solutive Syrup of Roses, or of Senna, or any other Syrup.

17. *The Sowre Spirits of Vitriol* and *Sulphur* are in common use to kill *Worms*; which I confess cut *Phlegm*, and kill *Worms*, a few drops of them being given in daily drink, used a pretty while: But they are not alike profitable to all, seeing they sharpen the appetite and encrease a sowre humour, both often hurtful to little ones: Wherefore, unless they be also thirsty, I had rather *Volatile Salts* were used, and bitter plants.

C H A P. XI.

Of the Rickets.

I. **T**He *Rickets* seems to take its name from *ῥαχίς*, a disease in the *Spine* or *Back-bone*, and may be defined *an irregular and unequal nourishment of the parts of the Body*: The *Head* being greater than naturally it should be, and often the *Fore-head* growing out before: All the *Limbs* and *Muscles of the body* loose, limber, soft, and pined as it were with a *Consumption*, so that the skin hangs loose: The *bones* about the joints, especially the wrists and ends of the *Ribs* big, and that with solid bone: The *body* is observed not to be so stiff as others are after death: The *breast* lean, and very strait,

strait, sharp forwards, not unlike a Cocks : The Belly lean, but swelled by a great Liver ; and Wind in the Stomach and Guts, which also swells the other intrals. The *Lungs* often grow to the sides, and have clods of blood, or Ulcers sometimes in them, often water in the breast, and ventricles of the Brain, all which are not bred on a sudden but by degrees, and first begin with a more florid habit of body.

2. The unequal nourishment of the parts is caused by an unequal distribution of blood in the arteries ; those which go into the head called *Carotides* being very large, as also the *jugular veins* ; but those arteries and veins which convey nourishment to the rest of the body are very small, and the parts insensible by sluggishness and want of Spirits, which also hinder the arteries in their office, whence follows a general weakness, and aversness to motion, the blood being unequally dispersed to the parts which are less nourished.

3. Several parts of the bones are over-nourished, which so often makes Limbs crooked, for if bones grow out on one side more than on the other, they must needs be crooked there, for larger veins and arteries run into those parts of the bones which grow big, whilst the other parts of the bones by the straitness of those arteries which convey blood to nourish them, are not enough moistned by it, (there being also a peculiar indisposition of blood) hence Infants are seldom born with it, because all parts are alike equally nourished in the womb by heat dispersed alike to every part.

Of the
Cause if
heredita-
ry.

4. The disease may be hereditary, if the parents be Cachectick, &c. or abound with phlegmatick or watery humours, which are conveyed in conception to the Infant; also great hunger, much vomiting, purging or bleeding, or sweating, yea any disease that wastes the body, will cause an inbred disposition to the Rickets.

5. The

5. The Child is less vigorous and active, more dull and insensible when the Parents one or both are soft of life and effeminate, and do not stir much; when they use a moist and full diet, are given to pleasure, idleness and much sleep, especially after meat, a sedentary life and without care: The parts being thus dull the blood in its circulation is changed accordingly, and seed bred of such blood must needs be such, and also make the Infant of that temper.

6. To which the mothers unwholesome diet while with child contributes not a little, also too free bleeding, too much venery, too long suckling another child, which hinders nourishment from coming to the conception; also daily hunger, want of appetite or of digestion, too much sleeping, and aversness to exercise, not but that their exercise and waking should be very moderate (lest they offer violence to the womb and cause miscarriage) which make the Mother more healthy and the conception

ception more vigorous, active, and less drowsie.

If breeding in the Child.

7. Whether the disease be hereditary, or creep in by degrees upon the Infant, where the fore-cited symptoms are, they make the humours faulty, which do the like to the blood and spirits, whereby all offices of the body are performed accordingly.

8. A redundancy of Phlegm even in the Stomach makes the Chyle phlegmatick, which Chyle changes the Blood accordingly, of which Blood, seeing the Humours are bred, they must needs be of the same hue, which will cause a slower circulation of them all, and so by consequence much *toughness in Spittle*, and *Sourness in the juice of the Sweet-*

*De Rachitide, p. 197, 201, 316.

*Of which see my Apparatus.

bread, which Dr. Glisson * seems to hint but very obscurely, as not knowing what way it comes into the Stomach, in which place when they * are returned, as they constantly do, they raise a faulty effervescency, and still more and more, yea,

yea, anew encrease Phlegm in the habit of body.

9. *Choler* also may justly be supposed, as it abounds with Phlegm, so to have a narcotick quality, which will cause the Spirits to be drowsie and sluggish, as Phlegm and sowreness make the Limbs loose and soft, weak and languid: For seeing good nourishment is ascribed to a Lee-Salt in *Choler*, and a sowre humour destroys it as Phlegm dulls it, leanness must needs follow where these are. I confess a sowre humour does make Chyle in the Stomach, but that Lee-Salt must separate the extremities in the small Guts from Chyle, and this perhaps is done by precipitation.

10. The abuse of those six things called *non-naturales* will deprave the humours: and First, *Air*, if it be cloudy, Northern and sharp, thus maritime and fenny places contribute thereto; so fine linnen shirts and not well dried, make the blood more sluggish; also exhalations of Mines, &c.

The six things called *Non-naturales*.

I.

II. Se-

2. 11. Secondly, *Meat* and *Drink* as Sea-fish, raw meats, full diet causing crudities, dried and salt flesh and fish, milk sweetned with Sugar, old milk, stale or tart wine or beer, all which lessen or destroy the natural heat.
3. 12. Thirdly, *Motion* and *Rest*. Want of exercise dulls the natural heat, by which the body should be nourished, in dispersing the Blood and Spirits.
4. Fourthly, As for *Grief* and other *Passions*, children are not liable to them.
5. 13. Fifthly, *Sleep* and *Waking*. Sleep may be more allowed children than men, yet if it be above measure, it does the same harm that want of exercise does; if too little it hinders digestion, makes the blood sharp, and weakens the Spirits, which things are inlets to a phlegmatick and sower humour, the cause of this disease.
6. 14. Sixthly, *Voiding* and *retaining* excrements, as *Sweat*, *Urine*, *Stool*

nk, Stool, &c. as any of which are
iet stopt, so they cause a peculiar hurt
elh unto the blood. Too much Sweat,
Su- &c. waste the Spirits, and dispose
or the body to this disease.

est. 15. The child that is born with
ral the Rickets (which rarely happens
be ere it be seven or nine months old)
ood is seldom cured, also the elder he is
her and the more stirring, the sooner he
to is cured; Children of strong consti-
ing tutions have been cured by exercise
hil and rubbing alone, which stirring up
ove heat, breeds new Spirits, and shakes
cha off their drowsiness, and nourishes
tle the limbs.

ood 16. If the child have other dis-
its eases complicated with it, it is the
leg worse to cure: The stronger the
aul disease is, the worse to cure: With
tain an *Hydrocephalus* (or water opening
rin the head) as also the Pox, &c. it is
too commonly deadly.

17. Softness of life and idleness
will bring it into great mens Cra-
dles: If it come upon the striking
in of a Scurf or Scab, when they
break

break forth again, it may be easily cured.

The Cure.

18. I. The coldness of the Limbs require to be warmed. II. The want of Spirits to be repaired, and the drowsiness shaken off. III. The looseness of the flesh to be filled, and the unequality of nourishment to be replenished.

19. I. The coldness of the limbs must be warmed by such things as dry and heat the parts: Daily rubbing and swinging the body more or less as they are used to it, (which must be forborn when a little redness appears) much contribute to the Cure, while Medicines are used inwardly to purifie the blood, and ointments outwardly to strengthen the limbs, (of which anon.) Meanwhile let the six non-natural things be used contrary to what is set down in §. 11. to §. 15. coarse shirts should be worn, which by rubbing the parts increase natural heat: Meat and drink should be of easie digestion. No sweet things, unless mixed with what

that is spirituous. Stool and Urine should be proportionable to their meat and drink or sucking.

20. Amongst such things as heat the body, we may reckon all aromatical spirits, as uncompounded *Treatise* of our describing, *Tincture of Cinnamon*, *Aqua mirabilis*, the *Terminative Spirit of Sylvius*, &c. Also *Chymical Oils of Mace*, *Rosemary*, *Orange-peel*, *Carua's*, &c. and which is strongest of all, *Oil of Cloves*, and yet of much more vertue, if imbodyed with a *volatile Salt*, and the most proper remedy in this case, a drop or two being a dose, and repeated two or three times a day, till the disease decline) in any pleasant liquor, or in a little balm, or annel water. Where note, that if the Mother take of these drops while she is with child, I have observed she enjoys better health, and also brings forth a more vigorous child.

21. II. The same Aromaticks, if mixed to volatile Salts, will repair the Spirits, as being most homogeneous

geneous to them of any medicine and will also remove and correct the drowfiness of the spirits, by giving them new matter and strength, and making them active and quick in their motion, as it were forcing them; such are *Spirit of Urine*, or *Soot* rectified upon Salt of Tartar which will make it more grateful and operative; *Spirit of Harts-horn* exalted, by mixing it with highly rectified *Spirit of Sal Armoniac*; also that Spirit it self which likewise may be heightened by incorporating a very little of any *Chymical oil* with it: In this case it were not amiss to fume all the childs cloaths, sometimes with *Amber*, *Mastick*, &c.

22. Admit what hath been said and it will be most evident, that the warmness of the blood contributes much to its vigorous motion, seeing we daily observe, that coldness causes weak and slow motion of body which I take to be an effect of the slow motion of Blood, retarded by its stupifying enemy, Cold: And a

rub

rubbing the limbs makes the joints
limble; so spirituous Medicines
bounding with only volatile Salt,
add vigour afresh, and make the
circulation of Blood much more
speedy, and indeed without any dan-
ger: after, and by which,

III. *The flesh soon fills the skin,*
and the parts of the body are all equal-
ly nourished. I forbear to recite
large Catalogues of Simples which
might be proper to these purposes,
knowing that children are nice,
and can scarce be prevailed with to
take even the smallest, much less,
great doses: and seeing these may
be given in their milk or drink, they
may be the better beguiled; scarce
discerning them.

23. Where children do abound
with humours, they may be carried
out by Sweat, by Stool or Vomit;
the *Wholer* and the *Juice of the Sweet-Bread*
brought their own passages into the Guts
by Stool; into the Stomach by Vomit.
Aromaticks and Volatile Salts if
they sweat not the child, will make
way

way by insensible transpiration, of Urine, and so clear the blood of those dregs, and the better if a few grains of *Helmont's Diaphoretick Antimony*, or *Mineral Bezoard* be given with them: as for Example,

Take Balm and Burrage Waters, of each an ounce; Tincture of Cinamon a drachm; Mineral Bezoard ten grains; Oily Volatile Salt three drops; Syrup of the five opening Roots, or of Parsley half an ounce: Mix them, and give the Child a little at a time. A Spoonful or two when you desire it should sweat.

24. As for Vomits, I prefer *Minerals* before *Vegetables*, and shall say nothing of the latter, having ever found an infusion of *Glass of Antimony* safe, pleasant to take, benign, and effectual, being exact in its dose. For Example, Infuse two drachms of *Glass of Antimony* in a Gill of White wine or Sack, some time

times giving the Bottle a shake, after two days, you may give almost a drachm to a child a year old. Six drachms or an ounce is an ordinary dose for a man or woman.

I know Vomits are dreaded, and good reason, because they move the body 40, 50 or 60 times, whereas mine vomit but 6, 8 or 10 times, and have done their work in about two hours. I confess Vomits must be cautiously used, and where purges will do, are not needed.

25. To purge the foresaid Humours half a quarter of a grain of *Elaterium*, or two drachms of *Laxative Electuary*, or of that called *Benedictum Laxativum*, or *Catholicon* dissolved in warm Posset-drink, will be very proper; Or two or three grains of *Rosin of Jalap*, and as much of *Mercurius dulcis*, which use not to gripe, especially if the aforesaid Altering Medicines have been used a while, to prepare the humours for a quiet departure. It is much safer to purge often, and by little and little,

tle, rather than strongly though but once, which may endanger the child's life. Three or five grains of *fatid pills* may be taken, and if they purge not, two or three days after, more may be taken; for if they work not, they prepare the humours. Mean while continue using Volatile Salts.

Which
will make
the Blood
circulate
more vi-
gorously,
and rid it
of phleg-
matick
humours,
called *ex-
citatio*
of
Concoction.

26. If any look upon Volatile Salts with a prejudice, which yet are more universal than others, and in no disease more than in this, *Anti-venereals* and *Antiscorbutics* may be used in *Decoctions*, as *China*, *Sassaaparilla*, *Sassaphras*, *Agrimony*, *Liverwort*, *Maidens hair*, *Cresses*, also *Lavander flowers*, &c. It is not safe to purge or vomit while the child is griped: If it have a looseness *Rhubarb* is the fittest, purging choler and water, after that it binds the body, about 10 or 12 grains may be a dose, taking in Syrup of Coral, or any binding Syrup. If the looseness be violent 2 or 3 grains of *Sylvius Diascordium* may be given sometimes; which will

will also be effectual against sweating, if the child be much troubled therewith; for else it will waste his strength, and delay the cure.

27. An Issue in the Neck is good if there be an Hydrocephalus, where the bones are crooked; as much as may be, they should be set streight by Laced Boots, and the hollow side of the bended bones rubbed, which will bring the nourishing juice of the Blood thither: Also to strengthen the body, many wear Bodice with Whalebone, and lay a little Pillow under the crook of their back at nights.

28. Let them not try to walk till they have well recover'd strength. Rock them much till they be asleep, and let the Cradle feet be much bowed: Some thrust their fingers under the short Ribs to loosen the Liver from the Peritonæum.

29. The Child may be bathed in little Sage or Bay, Rosemary, Agrimony leaves; Elder Flowers, Briony and Spanish Angelica Roots, Goose-ung, &c. boiled in water, putting

a little Wine to it after boiling.

30. Of Oils I commend those of Swallows, Earth-worms, Camomile, &c. especially *Mans fat* alone, or mixed with a little *Nerve Ointment*, or that called *Martiatum*, *Aregon*, &c. which will allay a swelled Belly, if anointed therewith. Also a Plaister of that called *Stomach plaister* and *Sylvius's Carminative plaister*, in equal quantities spread on Leather, and laid upon the Belly where it is hard.

And thus much concerning Infants Diseases, which I hope will be profitable to Practitioners, and especially to sick Infants.



FINIS.

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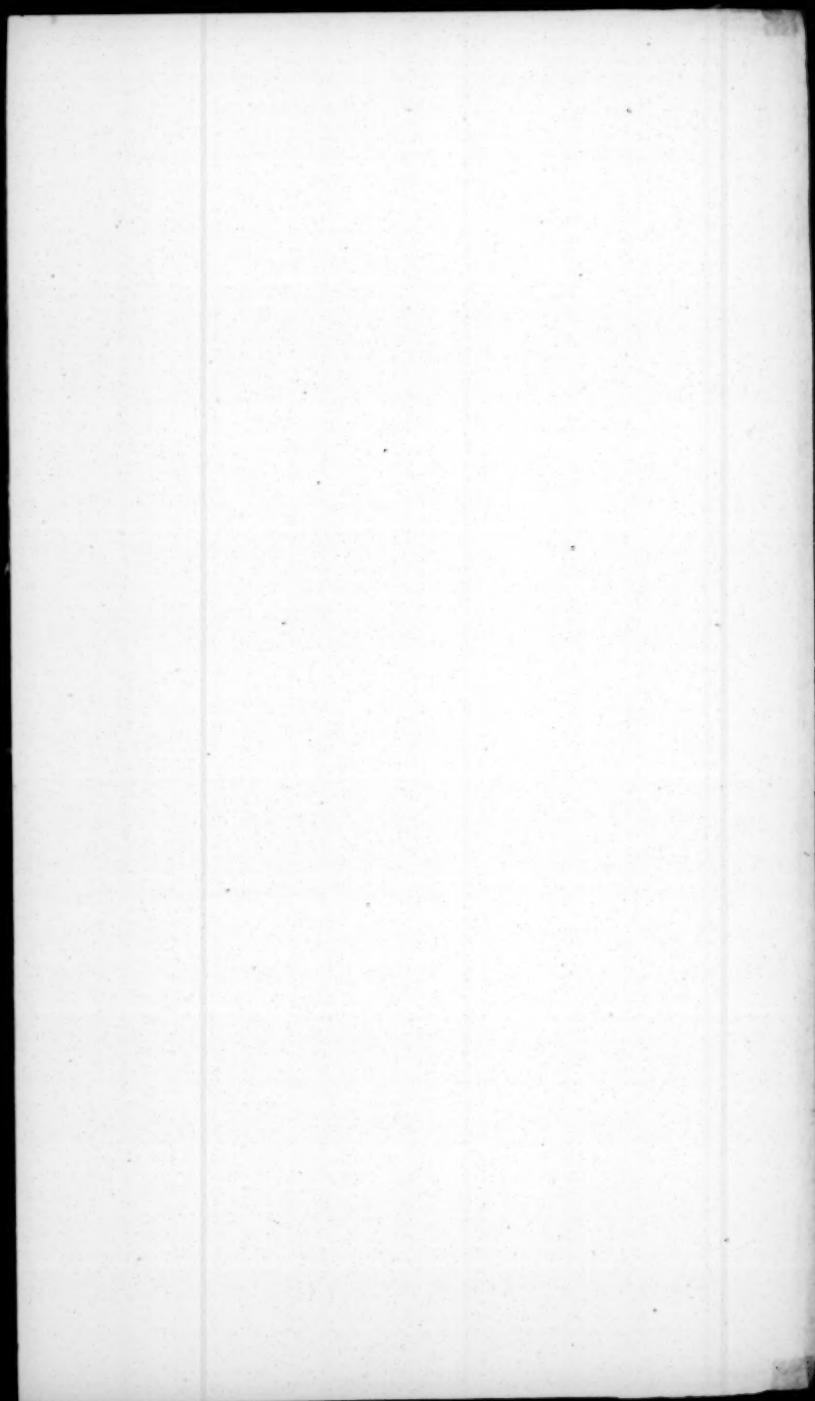
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